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आयुर्वेद रसशाळा, पुणे यांची गुणकारी व उपयुक्त उत्पादने...

रक्तवर्धक अवलेह



रक्ताल्पता, दौर्बल्य यामधे उपयुक्त.
(रसायन बल्य, धातुवर्धक म्हणून उपयुक्त).

गोल्ड कम्पाऊंड



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दूषित हवेचे थैमान

डॉ. दि. प्र. पुराणिक

सध्या सर्वच वृत्तपत्रातून दूषित हवा आणि त्यामुळे अनेक शहरांमध्ये निर्माण झालेली आरोग्यविषयक गंभीर पारीस्थिती ह्यांच्या बातम्या नित्यनियमाने झळकत आहेत. भारताची राजधानी दिल्लीही ह्यामध्ये अग्रक्रमाने शीर्षस्थानी आहे. दरवर्षीप्रमाणे धूर, धुके, दूषित वायू ह्यांचे प्रमाण वाढून त्याने धोकादायक पातळी गाठली आहे. त्याची परीणिती सध्या शाळा आणि शैक्षणिक संस्था बंद ठेवण्यात झाली असून ऑनलाईन पद्धतीने शैक्षणिक काम सुरु करण्यात आले आहे.

दिल्लीची भौगोलीक रचना अथवा स्थान असे आहे की दिल्ली शेजारील पंजाब आणि हरीयाना ह्या ठिकाणी उत्पन्न होणारे हवेचे प्रदूषण दिल्लीत पसरायला वेळ लागत नाही. ऊस तोडणीच्या हंगामामुळे जाळण्यात येणाऱ्या चवऱ्या, तसेच इतर पिकांची कापणी ह्यामुळे निर्माण होणारे पाचट जाळणे ह्यामुळे प्रचंड धूर व त्याचे कण आसमंतात पसरतात. दिवाळी सणात होणारे दारूकाम, फटाके इत्यादींमुळे उत्पन्न होणाऱ्या धुरामध्ये प्रचंड प्रमाणात वाढ होते. ह्यामध्ये भर पडते ती रस्ते, इमारती ह्यांच्या बांधकामामुळे उत्पन्न होणाऱ्या धूलीकणांमुळे. फटाक्यांवर न्यायालयांनी बंदी घालूनही सर्रास त्याचे उल्लंघन होत असल्याने हवेच्या प्रदुषणात प्रचंड वाढ होत आहे. धूर, धुळ, धुके ह्यामुळे हवेतील दृश्यमानता शुन्यापर्यंत खाली गेल्याने विमानांची उड्डाणे रद्द करणे भाग पडत आहे. राष्ट्रीय आणि इतर महामार्गांवरही अशीच पारीस्थिती उद्भवत असल्याने रस्त्यांवरील वाहतूकीत खंड पडतो अथवा ती ठप्प होते. ह्याचबरोबर आटोमोबाईल्स, कारखाने, स्वयंचलीत वाहनांमुळे उत्सर्जित होणाऱ्या धूरामुळे वातावरण कमालीचे प्रदुषित होते.

हवेतील सूक्ष्म धूलीकण, कार्बन डायऑक्साईड, कार्बन मोनॉऑक्साईड, सल्फर ऑक्साईड, नायट्रोजन ऑक्साईड ह्यांचे प्रमाण धोकादायक स्तरावर वाढल्याने त्याचा आरोग्यावर अतिशय घातक परीणाम होत असून त्यामुळे श्वसन व इतर शरीराच्या संस्थांवर गंभीर परीणाम होत आहेत.

हवेतील प्रदुषणामुळे श्वसनाचे विकार उत्पन्न होत असल्याने तातडीचे उपाय करावे लागतात. ह्यामध्ये रस्त्यांवर

पाण्याचे फवारे मारणे, सुरु असलेली बांधकामे बंद ठेवणे, ठराविक दिवशी ठराविक वाहने रस्त्यांवर आणण्यास परवानगी देणे असे उपाय योजले जातात. मुंबई शहर देखील ह्याला अपवाद नाही. आधीच मुंबईची हवा अत्यंत दमट व अनारोग्यकारक ! उन्हाळा आणि पावसाळा हे दोनच ऋतु येथे पहावयास मिळतात. प्रचंड लोकसंख्या, रेल्वे, रस्ता वाहतुक, प्रचंड कारखाने ह्यामुळे होणारे हवेचे प्रदूषण ह्यामध्ये कमालीची भर पडते. त्यामुळे मुंबईचे हवामान हे आरोग्याला पोषक कधीच नसते.

पुण्यातील आणि पिंपरी चिंचवड शहराची हवा ही देखील दूषित झालेली आहे. ह्या दूषित हवेतील धूलीकण व प्रदूषण ह्यामुळे विषाणूजन्य आजार मोठ्या प्रमाणात उद्भवत आहेत. विशेषतः "ॲलर्जी" मुळे अनेक विकार उत्पन्न होण्यास मदत मिळत आहे. दम्यासारख्या विकार असलेल्या रुग्णांना ह्याचा त्रास होत आहे. त्यामुळे श्वास घेण्यास त्रास होणे, दम लागणे अशी लक्षणे रुग्णांमध्ये आढळत आहेत. एरवी विशेष कांही आजार नसलेल्या रुग्णांनाही श्वसन संस्थेच्या विविध विकारांना बळी पडावे लागत आहे.

हवेचे प्रदूषण आणि पर्यावरण बदल ही फक्त भारताची समस्या नाही. ती आता जागतिक समस्या बनली आहे. त्यावर World Health Organization सारख्या संस्थांनी पुढाकार घेवून करावयाच्या उपाय योजना ह्यावर मार्ग काढण्याचा प्रयत्न होतो आहे. त्यासाठी जागतिक पातळीवर परीषदा आयोजित केल्या जात असून चर्चा करून फलनिष्पत्ती शोधण्याचा प्रयत्नही केला जात आहे. जागतिक पातळीवर जेव्हा केव्हा पर्यावरण बदलावर उपाय शोधण्यात यश मिळेल तेव्हा मिळेल. परंतु सध्यातरी हवा प्रदूषणावर स्थानिक पातळीवर शासकीय, निमशासकीय पातळीवर उपाय योजना करणे योग्य होणार आहे. त्यासाठी "Treat the Cause" चा अवलंब करून त्याची अत्यंत कडक अंमलबजावणी केली तरच ते शक्य होणार आहे. त्यासाठी न्यायालयांकडून आदेश येण्याची प्रतीक्षा करणे योग्य नाही.





The Dark Side Of Maida: Health Risks Explained With A Gluten-Free Bread Solution.

Vd. Rujuta Korday,
M.D. (Scholar)

Dr. Rajkumar Bobade, HOD - Swasthavritta and Yoga,
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Introduction : Maida, a refined wheat flour, is made by removing the fiber-rich bran and nutrient-dense germ from wheat, leaving only the endosperm. This process results in a yellowish flour, which is then bleached with chemicals such as benzoyl peroxide, chlorine gas, and azodicarbonamide to make it appear white and soft. While maida is commonly used in baking, the refining process strips away essential nutrients like unsaturated fatty acids, vitamins, minerals, and fiber. The bleaching agents used can have harmful effects, contributing to health issues such as cancer, allergies, gluten intolerance, celiac disease, diabetes mellitus, coronary artery disease, osteoporosis and arthritis, Asthma etc. **Aim :** To highlight the health risks of maida consumption and provide a gluten-free bread recipe as a healthier alternative.

Materials : 1) Online article and website on maida (refined wheat flour) 2) Bhavaprakasha Nighantu. 3) Charak Samhita. 4) Sushrut Samhita. 5) Ashtanghruday.

Methods : 1) References on the maida (refined wheat flour) were thoroughly collected from articles and website. 2) References on the wheat (गेधूम) was systematically collected from relevant literature. 3) The collected data was then recorded, analyzed, and interpreted for a comparative study and applied aspect.

Review of Literature :

Review of maida : Maida is one type of flour obtained from wheat. It is made by removing the bran (fiber rich) and the germ (nutrient rich) of the wheat. The endosperm part of the wheat grain is processed which results in yellowish flour because of the pigments (Xanthophylls) present in endosperm.

To make it attractive to the consumers it is

made white by exposing it to various chemicals (bleaching agents) like benzoyl peroxide, calcium peroxide, chlorine gas, NO₂, chlorine dioxide, Azodicarbonamide. The most commonly used bleaching agents are benzoyl oxide and chlorine gas (Gunasekaran, 2016). A chemical called alloxane is added in the maida to make it soft.

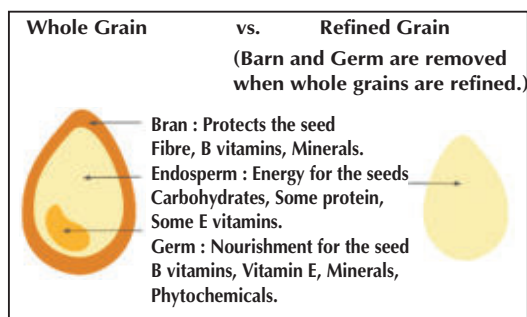


Figure 1: Wheat grain diagram.

Refined wheat flour / Maida contains

- Moisture : Not more than 14.0 per cent (when determined by heating at 130-133oC for 2 hours).
- Total ash: Not more than 1.0 per cent (on dry weight basis).
- Ash insoluble in dilute HCL: Not more than 0.1 percent (on a dry weight basis).
- Gluten (on a dry weight basis): Not less than 7.5 per cent.
- Alcoholic acidity (with 90 percent alcohol): Not more than 0.12 percent expressed as H₂SO₄ (on a dry weight basis) If the product is to be used for bakery purpose, the following flour treatment agents in the quantities mentioned against each may be used, namely:
 - Benzoyl peroxide (Max) -40 p.p.m.
 - Potassium bromate (Max) -20 p.p.m.
 - Ascorbic acid (Max) -200 p.p.m. (FSSAI, 2011)

During This Refining Process, wheat flour loses the following essential nutrients

1) Half of the beneficial Unsaturated fatty acids. 2) Vitamin E. 3) 50% of the calcium content. 4) 70% of the phosphorus content. 5) 80% of the iron content. 6) 98% of the magnesium content. 7) 50 - 80 % of the Vitamin B complex. 8) Most of the fiber.

Hazardous effects associated with bleaching agents used to make the Bleached flour [Maida]

1) Benzoyl Peroxide : It interferes with the metabolism of Omega-6 and Omega-3 fatty acids. It also destroys vitamin A and vitamin B from the flour.

2) Chlorine Dioxide : It destroys the vitamin-E from the flour. It causes a significant retardation of the physical growth in children.

3) Azodicarbonamide : Increases risk of developing asthma and allergies. It is actually an industrial chemical used commonly for making the soles of shoes and foamy yoga mats. Azodicarbonamide causes rapid breakdown of gluten present in the wheat into Gliadin and Glutenin, both of which increase Gluten intolerance. When heated as in case of bakery items it breaks down into two chemicals which are proven carcinogens [Cancer causing agents].

4) Potassium Bromate : Has toxic effects on kidneys. It is a carcinogen responsible for kidney and thyroid cancer. It is already banned in many countries from European union, UK, US etc. Recently in July 2016 the Indian government has also banned potassium bromate use as a bleaching agent in maida.

5) Calcium Peroxide : Australian food additives guide warns people having allergies or asthma to eat flour containing calcium peroxide.

Physiological impacts

Celiac disease : Endosperm has starch granules which contain two types of proteins-Glutenin and Gliadin. When it is combined with water, they form membrane like network called gluten, which gives elasticity and longer shelf life to Maida (Jain, 2017).

Gluten intake is considered to be a factor in developing Celiac disease, which is an auto-immune disease in which the immune system mistakes substances inside gluten to be a threat to the body and attacks them, causing damage to the bowel surface and the intestinal lining (permeable gut), thus hampering its ability to absorb nutrition. Higher gluten intake was associated with a 6.1% increased risk of celiac disease autoimmunity, an immunological response to gluten, and a 7.2% increased risk of celiac disease per each additional gram of gluten per day (Andrew, 2019).

Prevalence - It is estimated to affect about 1 in 100 people worldwide and more than 2 million people might not know that they have it and they have the chance of developing other autoimmune disorders, according to the Celiac Disease Foundation. The prevalence of celiac disease has jumped four folds in India since the 1960s and now eighty lakh people are affected, according to experts at the International Symposium on Wheat Related Disorders (ISWD) (Down to Earth, 2019)

Market - Asia is expected to show high growth rates in the next five years in global celiac drugs market, with China and India being the fastest growing markets in the Asia-Pacific region (Market Report Observer, 2019).

Diabetes mellitus : When bleached flour was introduced in America during the early 20th century, nitrogen trichloride, commonly known as Agene is used as a bleaching agent. Then in 1948, a British nutritionist named Lord Mellanby, conducted experiments in which dogs were fed with white bread made of flour bleached with nitrogen trichloride. Lord Mellanby's dogs had fits which is similar to epilepsy in human beings. Then baking and milling industry came up with new bleach, chlorine dioxide (Rorty, 1954). This chlorine dioxide, used for bleaching flour to make it 'white', leaves alloxan as a byproduct (Schwarcz, 2017). Alloxan results in the degradation of pancreatic beta-cells, which is

responsible for producing insulin, resulting in type1 diabetes mellitus. Apart from this, Maida has high glycemic Index, which increases the chance of getting diabetes mellitus (Rohilla& Ali, 2012).

Prevalence -In 2019, approximately 463 million adults (20-79 years) were living with diabetes; by 2045 this will rise to 700 million (International Diabetes Federation, 2019).

Market - The global diabetes market should reach \$155 billion by 2021 from \$125 billion in 2016 at a compound annual growth rate (CAGR) of 4.4%, from 2016 to 2021 (Medgadget, 2020).

Cancer : One of the bleaching agent used in Maida is potassium bromate which helps in giving high rise and uniform finish. In 1992, The Joint FAO-WHO Expert Committee on Food Additives (JECFA) concluded potassium bromated as 'genotoxic carcinogen'. The International Agency for Research on Cancer (IARC), associated with WHO, classified potassium bromate in 1999 as class 2B, i.e., possibly carcinogenic to humans (CSE, 2015).

Prevalence - Cancer is the second leading cause of death globally, and is responsible for an estimated 9.6 million deaths in 2018. Globally, about 1 in 6 deaths is due to cancer. Around one third of deaths from cancer are due to the 5 leading behavioral and dietary risks: high body mass index, low fruit and vegetable intake, lack of physical activity, tobacco use, and alcohol use (WHO, 2018).

Market - The global oncology/cancer drugs market was valued at \$97,401 million in 2017, and is estimated to reach at \$176,509 million by 2025, registering a CAGR of 7.6% from 2018 to 2025 (Allied market research, 2019).

Other disorders - Glue of the gut : Maida is called as 'glue of the gut', as it turns into glue in intestines. This happens because of the absence of fiber content. This is congested in the system, resulting in sluggish metabolism and can often lead to weight gain, stress, headaches and migraines (Agarwal, 2018).

Coronary artery disease : Alloxan is present in the bleached Maida flour causes heart disease. The studies indicate a clear association between atherosclerotic coronary artery disease and Maida eating. Maida is labeled as a slow poison by eminent physicians. Though the use of alloxan is banned by FSSAI, the use of chlorine dioxide to bleach flour leaves alloxan as a by-product (Waheed, Akbar, Naqvi, et al., 2016).

Osteoporosis and arthritis : During the refining process, all the nutrients are removed from the flour. This makes the flour acidic. So, to compensate the acid-alkaline imbalance, the body is forced to take calcium away from bones. This causes bone loss, which leads to serious conditions like osteoporosis, Arthritis and other chronic illness (Mahajan, 2016).

Non-celiac gluten sensitivity : Gut permeability of these people are normal, unlike that of celiacs, but gluten makes it sore just as much as that of celiacs. Symptoms emerge hours to days after gluten exposure and are largely extra-intestinal; they include headache and eczema but also fatigue and foggy mind (Anderson, 2019).

Asthma: The bleaching agent Azodicarbonamide is used in Maida; key toxic effect of Azodicarbonamide is asthmagenicity (CICAD-WHO, 1999).

Psychological impacts - Low density lipoproteins (LDL) are essential for delivering cholesterol to the brain but the high glucose content of the refined flour results in glycation (glucose binds with this low density lipoprotein resulting in the oxidation of LDL) creating free radicals, which leads to the damage to DNA and various cognitive impairments.

Majority of feel-good hormones and chemicals are produced around the intestines, which is called as "second brain". Gluten intake results in damage to the lining of the intestines, this causes the inability of the intestines to intake the nutrients, which are needed for the production of various

neurological chemicals like serotonin, resulting in mood related disorders because, more than 90% of the serotonin in our body is produced in this region. This is the reason why, celiac disease associated with increased risk of depression (1/3rd of celiac patients are diagnosed with depression) and psychosis.

Hemoglobin A1C is the protein found in the red blood cell that carries oxygen and binds to blood sugar, and this binding & Hemoglobin A1C level is increased when blood sugar is elevated. There is a direct relationship between hemoglobin A1C and the future risk of depression (Perlmutter, 2013).

Antibodies against gluten, attack an enzyme involved in the production of GABA- prime inhibitory neurotransmitter, whose dysregulation is implicated in both anxiety and depression. Antibodies against the brain, triggered by gluten, can cause severe neurological dysfunctions (Bressen, 2016).

The food with gluten content is sticky, which interferes with digestion, resulting in the formation of residue in the gut, this residue activates the immune system resulting in damage to the intestinal lining. When a body negatively reacts to food, it attempts to control the damage by sending out inflammatory messenger molecules and inflammatory chemicals especially cytokines, which causes inflammation to wipe out the enemies, but Cytokine is an antagonist to brain, damaging tissue and leaving the brain vulnerable to dysfunction and disease. Cytokines also blocks the production of neurotransmitters like serotonin, again resulting in depression and anxiety (Perlmutter, 2013).

Studies have found raised gluten-related antibodies in patients with bipolar, major depressive disorder, and schizophrenia. The episodes of acute mania is associated with increased serum levels of antibodies against gliadin. Hence, there is mounting evidence for a potentially bi-directional relationship between gluten sensitivity and psychiatric

disorders (Busby, 2018).

Difficulty in unlearning unsustainable consumption - Gluten breaks down in the stomach to become the mix of polypeptide, which can cross the blood-brain barrier and binds with the brain's opioid receptors, as it is a exorphin (an external morphine), which is responsible for producing sensational high/ euphoria. Opioids are involved in both the palatability and rewarding aspects of food, hence they play a major role in food cravings and food addiction, thus people find it extremely hard to give them up (Perlmutter, 2013).

In children with psychotic symptoms, patients with schizophrenia and women with postpartum psychosis larger than normal amounts of exorphins have been detected in the cerebrospinal fluid; exorphins clearly do not belong there. In the presence of faulty barriers, though, they could migrate from the gut to the blood (prompting an immune reaction) and from there to the cerebrospinal fluid. In people with schizophrenia (unlike in healthy individuals) the more antibodies against gluten found in the blood, the more it can be noticed in the cerebrospinal fluid (Bressen, 2016).

Review of Wheat (गोधूम):

Qualities of wheat (गोधूम) (See Table)

Discussion : According to ayurved - wheat (गोधूम) qualities - As we have discussed earlier qualities of wheat are madhura, sheet, vaatpittahara, guru, kaphaprada, shukraprada, balya, snigha, sandhankarak, sara, jeevaniya, bhruhan, varnaya, ruchya, sthiratwakrut.

However, maida (refined wheat flour) is different from whole wheat because, as discussed earlier, maida consists only of the endosperm, lacking the bran and germ. It also contains chemical bleaching agents such as benzoyl peroxide, chlorine gas, azodicarbonamide and alloxan. As a result, the nutritional qualities of wheat are not retained. Maida becomes moreguru (heavy and difficult to digest), picchila (sticky), and

tridoshakar (disturbs all three doshas - causing conditions like vaat imbalance: cancer, depression and anxiety, osteoporosis and arthritis; pitta imbalance: indigestion; and kapha imbalance: obesity, cancer, etc.).

Discussion on Ultra-Processed Foods (UPFs) Containing Maida - Ultra-processed foods with maida (refined wheat flour) as the main ingredient were analyzed. It was found that 95% of biscuits, 80% of breads (including brown bread), and 80% of pizza bases in local stores are made with maida (refined wheat flour). The cheaper cost of maida-based products makes them more popular, despite healthier options like 100% wheat bread being more expensive. This trend extends to noodles, pasta, cakes, and other snacks, all predominantly made with maida.

Whether made from maida or wheat, these ultra-processed foods are unhealthy due to the presence of preservatives, emulsifiers, thickeners, and artificial ingredients. However, a shift towards millet-based, preservative-free alternatives is emerging.

While wheat or millet-based products without additives are healthier than their maida counterparts, homemade, whole food plant-based meals remain the best choice.

Conclusion : Maida loses key nutrients during processing and is treated with harmful chemicals, contributing to health issues like gluten intolerance, diabetes and cancer. Ultra-processed foods (UPFs) made with maida are common, especially in breads, biscuits, and snacks and contain unhealthy additives and preservatives. Even wheat-based UPFs are only marginally better if additives are used.

Healthier alternatives like millet-based, preservative-free options are emerging, but the best choice remains homemade, whole food, plant-based meals. To promote better health, it's essential to minimize maida and ultra-processed food consumption.

Gluten free millet bread recipe:

Ingredients - 1) Fruit yeast water* - 2 tsp 2) Jowar flour (any millet flour) - 1 cup + 2tsp 3) Flaxseed powder - 2 tbsp 4) Psyllium husk (isabgol) - 2 tbsp 5) Coconut milk or any other

Qualities of wheat (गोधूम)					
Sr. no.	भा.प्र. (धान्यवर्ग) iii	च.सू. २७/२१ iv	अ.ह.सू. ६/१५v	सू.सू. ४६/४३ vi	Meaning
1.	मधुर	स्वादु	मधुर	मधुर	Sweet in taste
2.	शीत	शीतल	शीत	अतिशीत	Cold in potency
3.	वातपित्तहर	वातहर	वातपित्तहा	अनिलपित्तहंता	Pacifies Vata and Pitta dosha
4.	गुरु	गुरु	गुरु	गुरु	Heavy to digest
5.	कफप्रद	-	-	-	Increases Kapha dosha
6.	-	-	-	श्लेष्महर	Pacifies Kapha dosha
7.	शुक्रप्रद	वृष्य	वृष्य	शुक्रप्रद	Aphrodisiac
8.	बल्य	-	-	बल्य	Acts as tonic
9.	स्निग्ध	स्निग्ध	स्निग्ध	स्निग्ध	Unctuous
10.	संधानकारक	संधानकृत्	संधानकारी	संधानकृत्	Healing
11.	सर	-	सर	सर	Mobility
12.	जीवनीय	जीवनीय	जीवनीय	-	Rejuvenates
13.	बृंहण	बृंहण	-	-	Nourishing
14.	वर्ण्य	-	-	-	Improves complexion
15.	रुच्य	-	-	रुचिप्रद	Pleasing to the taste
16.	स्थिरत्वकृत्	स्थैर्यकृत्	स्थैर्यकृत्	स्थिर	Gives stability



Figure 2. Bottom view of glass bowl -Starter for Gluten-Free Bread after fermentation.



Figure 3. Fruit yeast water.



Figure 4. Bread dough before fermentation.



Figure 5. Bread dough after fermentation.



Fig 5. Gluten free Jowar bread.

plant based milk or water - 1 cup. 6) Salt - According to taste. 7) Sugar - 1 tsp (Optional)

Procedure - Starter for Gluten-Free Bread - 1) Mix 2 tsp fruit yeast water and 2 tsp jowar flour (or any millet flour). 2) Let it ferment for 9 to 15 hours, depending on the temperature. It should resemble Figure 2 shown below.

Bread dough - 1) Combine the starter with 1 cup jowar flour (or any millet flour), 2 tbsp psyllium husk, 2 tbsp flaxseed powder, salt and 1 tsp sugar (optional). 2) Slowly add 1 cup coconut milk or water and knead the dough. 3) Let the dough rest for 10-15 minutes. 4) Knead again and shape into a loaf (you can use a bread tin). 5) Let it rise for 3 to 5 hours or until it doubles in size. 6) Bake at 180°C for 25 minutes. 7) Cover the bread with a damp towel until it cools down, then slice.

You can also use this recipe to make a pizza base. Shape the dough, add homemade tomato sauce, vegetables and herbs and bake for 20-25 minutes at 180°C.

Fruit Yeast Water Recipe - Ingredients - 1) Sugar - 70g 2) Dates - 3 3) Salt - 5g

Procedure - 1) Mix 500g water, 50g sugar and 2 dates in a glass bottle. 2) Let it ferment for 4 days at room temperature (around 26°C / 79°F). Shake the bottle at least twice a day, fully opening and closing the lid before and after shaking to release gases.

Stabilization : 1) Add 400g water, 20g sugar, 5g salt, and 1 date to the mixture. 2) Let it mature for another 4 days at room temperature, continuing to shake it daily. Afterward, sieve out the dates and store the yeast water in a glass bottle.

Feeding/Continuing: 1) Mix 700g water, 200g

of the yeast water, 35g sugar, 3.5g salt, and 2 dates. 2) Let it ferment for 2-3 days at room temperature, shaking the bottle daily. After fermentation, sieve out the dates and store the yeast water in a glass bottle. The yeast water can be stored in the refrigerator for up to 2 months without losing potency.

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A Critical Review On “Garbhashosha” : Ayurvedic And Modern Approach

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Introduction : Intra-uterine growth restriction is a major scenario worldwide as individuals born as growth retarded babies are having various other co-morbidities during adulthood. It can be defined as the inability of the fetus to achieve genetic growth potential due to a negative environment in the uterus during pregnancy. 3% to 7% of all pregnancies may be affected by fetal growth restriction. Intrauterine growth restriction (IUGR) is defined as babies with birth weight below the tenth percentile for a given gestational age for a given population as a result of pathological restriction in their ability to grow.

In Ayurveda text, garbhashosha is also stated as vatabhipanna garbha at term, is defined as underdevelopment or under nourishment of part or whole body of the fetus in utero. Ayurveda is one of the oldest scientific medical systems in the world. There is no concept in Modern Obstetrics that cannot find its root in Ayurveda. Ayurveda has its roots deep seated in samhitas especially the Bruhtraiyi. This science of longevity has mentioned detailed pathophysiology garbhaposhan occurs in Garbha and how vitiation of Dosha, Dhatu due to mithya aharvihar can lead to Garbha sosha. While describing specific management of garbhashosh, Sushruta suggested use of kshirbasti and medhy anna. Acharya kashyapa has described garbhashosh in khilastana, 22nd chapter while describing vatadosha karma and uses of kshir [1]

Acharya sushruta in sharirsthan described rupa of garbhashosh as ‘matu kukshi na purayati’ it means size of abdomen not increases accordingly to the gestational age of mother. Fetus inside uterus remains small for

dates. Due to increasing cases IUGR and poor postnatal prognosis it becomes important to study the prevention and treatment of disease as per Ayurveda.

Definition of Garbha : When Union between Shukra, Shonita and Jiv takes place there is formation of Garbha (embryo)¹

Function of Vayu for Garbhaposhan : Vayu helps with the differentiation and multiplying of cells hence playing an important role in the growth². Vata through its vyuhan properties helps with uteroplacental and fetoplacental circulation.

Garbha Poshan : Acharya Sushrut states that proper digestion of food is required for formation of Rasa Dhatu and it is responsible for proper nourishment of Purush. Rasa is Drava and Saumya in nature and is responsible for further Dhatu formation. When food taken by pregnant woman is digested by Agni (digestive juices), a Rasa Dhatu will be formed. It is taken up by heart and circulated in the body through Dashadhamani and by Vyana Vayu.

Acharya Charak has explained that in pregnant woman Rasadhatu according to its karma divided into three parts³

- 1) Nourishes and helps the growth of a fetus,
- 2) Nourishes the mother's own body,
- 3) Nourishes the breasts to facilitate the proper lactation

Vitiation in formation and circulation of Rasa Dhatu, can lead to harmful effect on fetal growth.

Apara (Placenta) and Garbhanabhinadi (Umbilical cord) : In the uterus, where the fetus implants Raja gets obstructed. This accumulated in the Uterus leads to formation of placenta⁴.

Placenta and umbilical cord becomes functioning after 4th month and thus after 4th month, fetus is nourished by placenta through umbilical cord.

In Ayurvedic classics, nourishment of the fetus is explained in two parts. Acharya Charak states that, the fetus is free from thirst and hunger. Mother is solely responsible for fetal nourishment. Before the fetal organs are not manifested it gets nourishment by Upasnehana (perfusion) through vessels⁵. The Rasa from Sukshmastrotas of mother by Upasnehan accumulates near fetus and fetus gets its nourishment through this Rasa.

Acharya Sushrut explains nourishment of the fetus by giving example of nourishment of the trees on the bank of water filled pond⁶. This could be correlated with uterine arteries and its remodeling of endothelial tissue.

After the fetal organs are manifested, a part of nutrition is received by Upaswedan i.e warmth of the mother i.e. by permeation through the pores of skin situated in the Loom Koop (hair follicles), this could be correlated with amniotic fluids and its nourishment through skin. The fetal umbilicus is attached to the umbilical cord and the umbilical cord to the placenta. The placenta is in turn connected with the heart (circulatory system) of the mother. The placenta gets huge blood supply and nourishment by the heart of the mother through Rasavaha Nadi (Blood Vessels), in similar context uteroplacental and fetoplacental circulation can be explained.

Garbhashosha - According to charaka due to non-availability of proper diet (nourishment) to the fetus or vaginal discharges (bleeding) after conception the fetus suffers from sosha (emaciation or dryness). This fetus attains its proper growth or maturity after years and the woman delivers it after years or prolong delay. Vayu is also said to be a cause for dryness of fetus⁷.

Susruta opines that due to affliction by vayu the fetus gets dried up, does not fill properly the mother's abdomen and quivers

very slowly. Dalhana elaborating the etiology says that due to effect of vayu the fetus has absence of ojas⁸.

Upavishthak - Acharya Charak states that after development and attainment of sara (after fourth month) by the fetus if bleeding per vaginum or other types of vaginal discharges occur due to use of pungent and hot articles by the pregnant woman, then the fetus does not grow properly due to these discharges and stays in the uterus for a very long time. This condition is termed as upavistaka⁹. Vagbhata mentions that aggravated vata causes dushti of pitta and sleshma, this obstruction reaches rasavaha nadi causing improper flow of rasa, the fetus does not develop properly and becomes upavistaka.

Nagodar And Upshushka Garbha - The woman who often observes fasts, eats stale food, does not take fat and uses other vata vitiating articles, her fetus gets desiccated and does not grow. This fetus remains in the uterus for a very long time and does not quiver. This entity is termed as nagodara. Vagbhata says that when the pregnant woman gets excessive bleeding either daily or monthly, then the fetus decreases in size and quivers very slightly, size of abdomen also decreases. This entity is called nagodara.¹⁰

Leena Garbha - Though Charaka has not given any name to this entity, yet, due to similarity in clinical features and treatment it has been included here. He says that her fetus being sleepy or idle does not quiver. Susruta opines that due to abnormalities of srotasas caused by complications of vayu, the fetus becomes lina (adhered), this fetus remains in uterus for a very long duration and gets various complications.¹¹

Treatment - According to Ayurveda, use of conservative treatment like use of Jeevaniya, Brihaniya, Madhur, Snigdha, Vatahar Dravyas with Ghrita, Dugdha and Aamagarbha will help her to come out of this condition.

Prevention - To follow Grabhini Paricharya as suggested by various granthkars.

Intra Uterine Growth Restriction -

Definition - "Intrauterine growth restriction (IUGR) refers to inability of a fetus to achieve full growth potential while in utero". Estimated fetal weight (EFW) less than 10th percentile.

Types Of IUGR -

Asymmetrical IUGR - Occurs later usually after 28 weeks of GA

Symmetrical IUGR - Growth inhibition from early pregnancy (4-20 weeks)

Types Depending Upon Onset -

Early Onset Growth Restriction - Any growth inhibition during the early period of cell hyperplasia will result in a fetus with fewer cells, but normal cell sizes. The fetus will be symmetrically small.

Late Onset Growth Restriction - In this form, restriction or cessation of growth occurs in fetuses that start out with normal growth potential.

Causes Of IUGR - Constitutionally Small Mothers, Low Nutrition, Low socioeconomic status, Vascular disease, Renal disease, pregestational DM, AAS, Infertility, Chronic hypoxia, Anemia, Inherited thrombophilia's, placenta and cord abnormalities, multiple fetus, chromosomal abnormalities, certain drugs etc.

Management - "When risk of intrauterine existence exceeds risk of extrauterine existence: deliver"

- Provide compassionate care with emphasis on adequate bed rest preferably in lateral recumbency, balanced nutrition and anxiety free environment.
- Corticosteroids to be given for fetal lung maturity
- High protein diet
- Usg and Doppler monitoring
- Explain DFMC
- Non stress test

Discussion - "Shosha" means drying up, "Garbha shosha" means "drying or shrinking" of fetus i.e restriction in fetal growth. Shoshan occurs through Ruksha property of Vata

Dosha. This vitiation of vata occurs through two Samprapti, one is dhatukshay janya and other is through margaavrodhjanya. Initially Charaka when describes IUGR under shosha, it is due dhatukshayjanya. Improper poshan can lead to not only fetal abnormalities but can cause abnormalities in placenta, umbilical cord and fetal circulation. Ashtang sangraha describes that vayu dries the Rasavaha strotas this can also be compared to early changes in uteroplacental circulation due to improper invasion of trophoblastic cells in spiral arteries causing constriction of vessels. This acts as predictor for future IUGR. Upvishtaka shows margaavrodhjanya samprapti, vitiated vata affects pitta and kapha dosha leading to obstruction this can be correlated to subchorionic haemorrhage in early stages leading to IUGR and also APH in second and third trimester. This obstruction can also lead to Hypoxia in fetus leading to distress and worsening the impaired uteroplacental and fetoplacental circulation. Leena garbha is a condition described by all the acharyas, 'na spandate' or 'nisfure' meaning the fetus does not quiver, prolongs intrauterine stay i.e postmaturity of fetus due to inactivation of fetal HPA axis and later causes death of fetus is described as mritgarbha. Fetal doppler which is a single most diagnostic criteria for severity of IUGR.

Conclusion - In samhitas the terms garbhashosha, upwishtaka, nagodara, leen garbha and mritagarbha are described according to severity. In today's era incidence of IUGR is increased and this affects morbidity of fetus. To prevent this, pregnant woman should follow garbhini paricharya as described by our Acharya. She should avoid dried, stale food, packed products in food and avoid long distance travelling, heavy strenuous work etc. She should include ghee, milk, and home cooked warm food.

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२) वायुर्विभजति ॥ सु.शा. ५/३

३) स्त्रिया ह्यापन्नगर्भायास्त्रिधा रसः प्रतिपद्यते- स्वशरीरपुष्टये, स्तन्याय, गर्भवृद्धये च। स तेनाहारेणोपष्टब्धः (परतन्त्रवृत्तिमात्रमाश्रित्य) वर्तयत्यन्तर्गतः॥ च.शा. ६/२६

४) गृहीतगर्भाणामातेववहानां स्रोतसां वर्त्मान्यवरुध्यन्ते गर्भेण, तस्माद्गृहीतगर्भाणामार्तवं न दृश्यते; ततस्तदधः प्रतिहतमूर्ध्वमागतमपरं चौपचीयमानमपरेत्यभिधीयते; शेषं चोर्ध्वतरमागतं पयोधरावभिप्रतिपद्यते, तस्माद्गर्भिण्यः पीनोन्नतपयोधरा भवन्ति॥ सु.शा. ४/२४

५) मात्रादीनां खलु गर्भकराणां भावानां सम्पदस्तथा वृत्तस्य सौष्ठवान्मातुतश्चैवोपस्नेहोपस्नेदाभ्यां कालपरिणामात् स्वभावसंसिद्धेश्च कुक्षौ वृद्धि प्राप्नोति॥ च.शा. ४/२७

६) मातुस्तु खलु रसवहायां नाड्यां गर्भनाभिनाडीप्रतिबद्धा, साऽस्य मातुराहाररसवीर्यमभिवहति। तेनोपस्नेहेनास्याभिवृद्धिर्भवति। असञ्ज्ञाताङ्गप्रत्यङ्गप्रविभागमानिषेकात् प्रभृति सर्वशरीरावयवानुसारिणीनां रसवहानां तिर्यगतानां धमनीनामुपस्नेहो जीवयति॥ सु.शा. ३/३१

७) आहारमाप्नोति यदा न गर्भं शोषं समाप्नोति परस्त्रुतिं वा। तं स्त्री प्रसूते सुचिरेण गर्भं पुष्टो यदा वर्षणेऽपि स्यात्॥ (च.सं.शा. ८/१५)

८) वाताभिपन्न एव शुष्यति गर्भः, स मातुः कुक्षिं न पूरयति मन्दं स्पन्दते च॥ सु.शा. १०/५७

९) यस्याः पुनरुष्णतीक्ष्णोपयोगाद्गर्भिण्या महति सञ्ज्ञातसारे गर्भे पुष्पदर्शनं स्यादन्यो वा योनिस्त्रावस्तस्या गर्भो वृद्धिं न प्राप्नोति निःसृतत्वात्; स कालमवतिष्ठतेऽतिमात्रं, तमुपविष्टकमित्याचक्षते केचित्॥ च.शा. ८/२६

१०) उपवासव्रतकर्मपरायाः पुनः कदाहारायाः स्नेहद्वेषिण्या वातप्रकोपणोक्तान्यासेवमानाया गर्भो वृद्धिं न प्राप्नोति परिशुष्कत्वात्; स चापि कालमवतिष्ठतेऽतिमात्रम्, अस्पन्दनश्च भवति, तं तु नागोदरमित्याचक्षते॥ (च.सं.शा. ८/२६)

११) वातोपद्रवगृहीतत्वात् स्रोतसां लीयते गर्भः, सोऽतिकालमवतिष्ठमानो व्यापद्यते॥ सु.शा. १०/५७





Ocular Trauma Management - A Case Study

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Introduction - One of the known major causes of blindness is Ocular trauma. Though eye is protected by lids and orbital margin still there is high incidence of blindness due to ocular trauma.¹

The causes of eye injury are diverse, but the risk and type of injury is often correlated with age, gender and race.² Ocular trauma is preventable public health issue throughout the world. It's one of the common causes of ophthalmic morbidity and monocular blindness in all parts of the world.³ According to WHO, 55 million eye injuries result in the restriction of daily activities per year. Approximately, 1.6 million persons worldwide are blind as a result of ocular trauma; 2.3 million have bilateral visual impairment and 1.9 million have unilateral vision loss.⁴

Ocular trauma may result in a socioeconomic and psychological impact on patients and their families. Therefore, appropriate and timely management of ocular trauma is crucial.⁵ The pattern of ocular injury depends upon the nature of injury such as mechanical injuries and non-mechanical injuries which includes chemical injuries, thermal injuries, electrical and radiational injuries.⁶

Aim - Review the clinical presentation of a patient and evaluate the visual outcome of blunt ocular trauma.

Objective - 1) To identify and evaluate patients with ocular trauma. 2) To give primary first aid to the patient

Material And Methodology

- Single Case Study on patient with Ocular Trauma.

- Schiotz Tonometer for measuring Intraocular pressure.

- Snellen Chart for measure visual acuity.

- Slit Lamp for anterior chamber examination.

Case Description - A 72 years old female patient from Pune visited to emergency department of concerned hospital with history of trauma to left eye 1 hour back with hand associated with sudden painful diminution of vision, watery discharge, intolerance to the ambient light.

History Of Present Illness - Patient was asymptomatic one hour back. As stated by the patient, while walking towards the bathroom at night, due to sudden imbalance she accidentally hit her left eye with hand.

Specifically asked for, she denied history of assault and gave no history of loss of consciousness, seizures or ear nose throat bleed after the injury.

Past Ocular History - Patient had no history of any ocular trauma in past. No history of amblyopia or squint. Her past surgical history is significant for cataract surgery.

K/C/O - Hypertension since 12 years.

Hyothyroidism since 10 year

M/H/O - Tab. Telmisartan 40mg and Hydrochlorothiazide 12.5mg once a day.

Tab. Carbimazole 5mg 1 tab once a day.

S/H/O - Rt. Eye SICS with PCIOL under LA 1.5 year ago. Lt. Eye SICS with PCIOL under LA March 2024 at STRH. TL 35 year ago

Allergy - No History of any drug or food allergy till date

Habits - Tobacco since 40 years

History of head trauma 4 years back.

Ocular Examination - Normal appearing orbital structures.

Intraocular Pressure - Right eye 14.6 mmHg and left eye Not recordable.

Visual Acuity

Vision	Right Eye	Left Eye
Unaided	6/12(p)	Hand Movement Negative Perception of light and projection of rays Positive
Pinhole	6/12	-
Near	N6	-

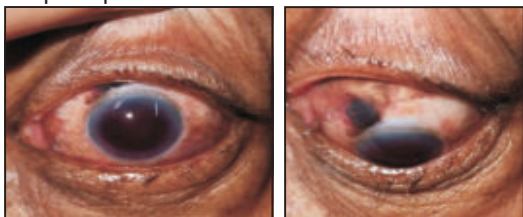
Slit Lamp Examination

	Right eye	Left eye
Lids	NAD	NAD
Conjunctiva	NAD	Iris prolapsed from previous Sclero -corneal tunnel
Cornea	Clear and Avascular	Clear and Avascular
Pupil	Round Regular	Not visible
Aterior Chamber	Deep	Deep with hyphaema
Lens	Pseudophakia	Lens reflex not seen

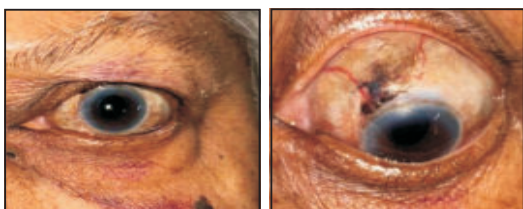
Fundus Examination

Not done.

Diagnosis - Left Eye traumatic scleral tear with iris prolapse.



Before Treatment



After Treatment

Treatment⁷

Primary first aid given -

Eye Drop Moxifloxacin 1 drop Stat

Eye Drop Timolol 1 drop stat

Eye ointment Occupol stat

Tight Eye pad given to Lt. eye

Tab. Chymoral forte 1 tab twice a day

Tab. Celin 500mg 1 tab thrice a day

Follow up on next day coming morning and advised Anterior chamber wash with iris reposition.

Next day⁻⁸

Procedure done: Left eye AC wash with iris reposition under LA

Anaesthesia: Peribulbar block (Inj Lignocaine 2% 3ml + Inj Bupivacaine 0.5% 2ml)

Procedure -

- Painting done with Povidone-iodine 5% solution and drapping done with sterile towel.
- Peribulbar block given to patient.
- Universal Eye speculum applied.
- Side port done with 150 MVR
- Anterior chamber wash given with Simcoe's cannula
- Intermittent anterior chamber maintains with viscoelastic substances
- Old sclerocorneal tunnel reopened
- Prolapsed iris repositioned back in its position
- Viscoelastic substance wash given
- No vitreous confirmed in anterior chamber
- No dislocation or subluxation of lens observed
- Left eye lens reflex seen
- Inj. Moxicip injected in anterior chamber
- Side port hydrated
- Inj. Gentamicin and Inj. Dexamethasone injected subconjunctivally
- Antibiotic eye ointment applied
- Eye drop Atropine 1 drop stat
- Eye pad given and patient shifted to ward in good condition.

Post Operative Medication

Tab. Zifi 200mg 1 tab twice a day

Tb Chymoral forte 1 tab twice a day

Tb Celin 500mg 1 tab thrice a day

Tab Imol plus (SOS)

Tab Wysolone 10mg 1tab four times for 4days in tapering form.

On Follow Up (POD-1)

	Right eye	Left eye
Lids	NAD	Ecchymosis
Conjunctiva	NAD	Congestion
Cornea	Clear and Avascular	Hazy
Pupil	Round Regular	Dilated pupil
Anterior chamber	Deep	Deep with air bubble
Lens	Pseudophakia	Lens reflex present
Vision	>6ft	Hand Movement Negative Perception of light and projection of rays Positive

On Follow Up (After 7 Days)

	Right eye	Left eye
Lids	NAD	Ecchymosis
Conjunctiva	NAD	NAD
Cornea	Clear and Avascular	Clear and Avascular
Pupil	Round Regular	Semidilated pupil
Anterior chamber	Deep	Deep
Lens	Pseudophakia	Lens reflex present
Vision	6/12(p)	>6ft
Pinhole	6/12	

Discussion -

Despite the fact that ocular trauma is an important worldwide cause of preventable monocular blindness, scant information is available regarding its management and its case studies. It is the number one ocular emergency. It is the leading cause of uni-ocular blindness, male and young age group is seen to be affected more in the developing countries. Every person must know the quick response to ocular trauma. Prophylactic

measure is always better than management. As discussed in the case above prompt management is must. Surgical intervention at the right time can save vision. Majority of these cases are due to accidents and few are due to assault. 2/3rd of accidental burn traumas occur at workplace. So, appropriate measures should be taken to prevent the incidence of ocular trauma.

Conclusion -

Patient was diagnosed with ocular trauma. This was a closed globe ocular trauma and surgical intervention was done at appropriate time to reduce the complications. Post-operative treatment is must for stabilizing the eye. Appropriate post-operative precautions can help to preserve the vision.

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A2 Cow's Milk as A Complete Diet for Chronically Ill Patients : A Holistic Approach to Palliative Care

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Introduction : Bovine milk and its products have been considered a remarkable nutritional source that improves human health in a variety of ways. Ayurveda has exclusively included milk in the "Kshiravarga" and all the Acharyas have termed "Gokshira" or bovine milk as the best in unison.

Palliative care is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment and treatment of pain and other problems, whether physical, psychosocial or spiritual.¹ Nutrition is an important aspect that is not always being talked about while dealing with the palliative care management of the patients.

The consumption of suitable foods is critical for such patients that will meet the optimal energy needs aiding rapid recovery from the disease.

In Ayurvedic literature, Milk is considered wholesome to the body and should be consumed regularly. Cow's milk is composed of about 87% water, 3%-4% fat, 3.5% protein, about 5% lactose and 1.2% minerals, with few variations depending on the breed considered.²

It also includes bioactive proteins such as whey and casein (3:1 ratio) that enhance the level of amino acid in the serum, muscle protein synthesis rate, as well as muscle damage repair.³

β -Casein is a major milk protein, representing 30% of the total protein found in

cow milk, whose structure can vary depending on the breed and genetic properties of different cows. The two major subvariants for this protein are the A1 and A2 types, which differ by an amino acid at position 67. In the A1 type, there is a histidine amino acid in this position, whereas in the A2 type, it is proline.⁴

When a histidine residue is in position 67, as is the case for the A1 β - casein protein, enzymatic cleavage of the preceding 7 amino acids is facilitated, resulting in the product peptide β - caseomorphin-7 (BCM-7).⁵ Several of the studies have demonstrated the pro-inflammatory role of the A1 subvariant β - casein protein and its effect on various aspects of health including the GI, endocrinological, neurological, and cardiovascular systems.

This article will focus on the systemic effects of the 2 major polymorphisms, A1 and A2, of the β - casein protein and its correlation with Ayurvedic literature.

This will review how these β - casein protein subvariants interact with many of the major organ systems of the body and the potential role of milk as a complete diet in chronically ill patients.

Aim Of The Study: 1) To study the descriptions of milk and its applied aspect of nutrition according to the Ayurveda classics as well as in the modern classics. 2) To study the applied aspect of milk as a complete diet in palliative care of chronic diseases according to Ayurveda classics as well as in the modern classics. 3) To form a conclusive statement of the use of milk as a complete diet in palliative care management of chronic diseases.

Materials And Methods: 1) Ayurvedic classics,

viz. Charaka Samhita, Susruta Samhita, Ashtanga Sangraha, AshtangaHridaya and modern medical books with some literature on milk were studied in detail. 2) The concepts available in the classics and research articles studied were collected to form a conclusive statement.

Review Of Literature:

Ayurvedic concept of milk- Milk is described under Ksheervarga, Agraya Sangraha and Rasayana in all three classical texts. Charaka, in Charaka Samhita, has discussed milk in Sutrasthana chapters 1, 25 and 27; Sushruta in Sushrut Samhita has discussed milk in Sutrasthana chapter 45, whereas Vagbhata has discussed milk in Sutrasthana chapter 5,6. (See Table 1 to 6)

Discussion:

1) Acharya Sushruta in Sutrasthana Dravadravyavidhi Adhyaya has mentioned the diseases in which milk can be administered as the nutritional therapy which coincides with the diseases mentioned by WHO that need palliative care.

2) The diseases mentioned under palliative care by WHO are cardiovascular diseases (38.5%), cancer (34%), chronic respiratory diseases (10.3%), AIDS (5.7%) and diabetes (4.6%) can be correlated to the diseases mentioned by Acharya Sushruta; Hrididosha, Gulma, Kas, Swas, Kashaya where milk was

indicated as a nutritional therapy.

3) Also many other conditions like kidney failure, chronic liver disease, multiple sclerosis, Parkinson's disease, rheumatoid arthritis, neurological disease, dementia, congenital anomalies and drug-resistant tuberculosis can be correlated with the conditions like Vastidosha, Panduroga, Grahanidosha, Unmada, Murccha, Bhrama, Mada.

4) All the chronic diseases take a heavy toll on the human body thus making them "Kshina" leading to depletion of Agni, Dhātu, Oja thus reducing the ayusha of the patients. Nutrition is the neglected aspect while treating these chronic diseases which affect the physical and mental health of patients.

5) Milk is said to be "Sarvaprāṇibhūtanam Satmya" and Pathyatama for bala, Vruddha, Kshata and "Kshina".

6) Milk is said to increase Oja, thus reviving life by its Jivaniya karma, It also protects the prana thus called Pranada securing the bala of the patient against chronic diseases. Milk is said to improve Agni thus the Deepana Karya, which leads to Prinana of dhatus providing the Balya effect to the human body. These are some of the reasons why milk should be administered as complete nutrition while treating chronic diseases.

7) Cow milk has major two variants depending

Table:1: Different qualities of milk according to classics

Serial No.	Name of the quality	Charaka ⁶	Susruta ⁷	Ashtanga Sangraha ⁸	Ashtanga Hridaya ⁹
1	Swadu	✓	✓	✓	✓
2	Shitala	✓	✓	✓	✓
3	Mridu	✓	✗	✗	✗
4	Snigdha	✓	✓	✓	✓
5	Bahala	✓	✗	✗	✗
6	Shlakshna	✓	✗	✗	✗
7	Picchila	✓	✗	✗	✗
8	Guru	✓	✓	✓	✗
9	Manda	✓	✗	✗	✗
10	Prasanna	✓	✗	✗	✗
11	Alpabhishyandi	✗	✓	✗	✗

This table reflects that similar qualities are observed and mentioned by all Acharyas. Amongst the qualities mentioned keen study and meticulous observation of Acharya Charaka is seen aiding the indication of milk.

Table 2: Showing the different opinions of Ayurvedic Acharyas about the indications of milk

Serial no.	Indication	Charaka ¹⁰	Susruta ¹¹	Ashtanga Sangraha ¹²	Ashtanga Hridaya ¹³
1	Jirnajwar	✗	✓	✓	✓
2	Kas	✓	✓	✓	✓
3	Swas	✓	✓	✓	✓
4	Shosha	✓	✓	✗	✗
5	Kshaya	✗	✓	✗	✗
6	Gulma	✓	✓	✗	✗
7	Unmada	✓	✓	✗	✗
8	Udara	✓	✓	✗	✗
9	Murccha	✓	✓	✗	✗
10	Bhrama	✗	✓	✓	✓
11	Mada	✗	✓	✓	✓
12	Daha	✓	✓	✗	✓
13	Pipasa	✓	✓	✓	✓
14	Hriddosha	✗	✓	✗	✗
15	Vastidosha	✗	✓	✗	✗
16	Panduroga	✓	✓	✗	✗
17	Grahanidosha	✗	✓	✗	✗
18	Arsha	✗	✓	✗	✗
19	Shoola	✗	✓	✗	✗
20	Udabarta	✗	✓	✗	✗
21	Atisara	✓	✓	✗	✗
22	Pravahika	✗	✓	✗	✗
23	Yoniroga	✓	✓	✗	✗
24	Garbhasrava	✗	✓	✗	✗
25	Raktapitta	✓	✓	✓	✓

The indications of milk given by Acharya Charaka, Susruta and Vagbhat milk used in specific diseases are mentioned above based on Karma.

Table 3: Showing the concepts of Karma of milk as per different Ayurvedic classics

Serial No.	Name of the karma	Charaka ¹⁰	Susruta ¹¹	Ashtanga Sangraha ¹²	Ashtanga Hridaya ¹³
1	Ojabardhana	✓	✓	✓	✓
2	Jivaniya	✓	✓	✓	✓
3	Rasayana	✓	✓	✓	✓
4	Pranada	✗	✓	✗	✗
5	Sarbapranabhrita satmya	✗	✓	✗	✗
6	Balya	✓	✓	✓	✓
7	Vrishya	✓	✓	✓	✗
8	Vajikaran	✗	✓	✗	✗
9	Medhya	✓	✓	✓	✓
10	Sandhana	✓	✓	✗	✗
11	Asthapana	✗	✓	✗	✗
12	Bayasthapana	✗	✓	✗	✗
13	Ayushya	✗	✓	✗	✗
14	Bringhana	✓	✓	✗	✗
15	Vata-Pittaghna	✗	✓	✓	✗
16	Dhatubardhana	✗	✗	✓	✓
17	Stanyakara	✓	✗	✓	✓
18	Shleshmala	✗	✗	✓	✗
19	Prinana	✓	✗	✗	✗

20	Manashkara	✓	✗	✗	✗
21	Shamana	✓	✗	✗	✗
22	Shodhana	✓	✗	✗	✗
23	Deepana	✓	✗	✗	✗

The above table shows the diverse karma of milk stated by Acharya Charaka, Sushruta, and Vagbhata.

The modern concept of milk - Bovine milk consumption has a long tradition in human history and is considered as the first and complete food providing nutrition since the neonate stage of human life. Milk contains various types of proteins, amino acids, Immunoglobulins, vitamins, and minerals which are mentioned in detail in the table given below:

Table 4: Composition of Milk¹⁴

Serial no.	Milk Component	Concentration in 1 litre whole milk	Contribution of 0.5 L whole milk to reference intake	Health effects
1	Fat	33g/l	-	Energy-rich
2	Saturated fatty acids	19g/l	-	Increase HDL, small dense LDL, and total cholesterol. Inhibition of bacteria, virus
3	Oleic acid	8 g/l	-	Prevent CHD, gives stable membranes.
4	Lauric acid	0.8 g/l	-	Antiviral and antibacterial
5	Myristic acid	3.0 g/l	-	Increase LDL and HDL
6	Palmitic acid	8 g/l	-	Increase LDL and HDL
7	Linoleic acid	1.2 g/l	-	Omega-6 fatty acid
8	Alpha- Linoleic acid	0.75 g/l	-	Omega-3 fatty acid
9	Protein	32 g/l	30-40%	Essential amino acids, bioactive proteins, peptides. Enhanced bioavailability
10	Lactose	53 g/l	-	Lactosylation products
11	Calcium	1.1 g/l	40-50%	Bones, teeth, blood pressure, weight control
12	Magnesium	100 mg/l	12-16%	For the elderly, asthma treatment
13	Zinc	4 mg/l	18-25%	Immune function. Gene expression
14	Selenium	37 ug/l	30%	Cancer, allergy, CHD
15	Vitamin E	0.6 mg/l	2%	Antioxidant
16	Vitamin A	280 ug/l	15-20%	Vision, cell differentiation
17	Folate	50 ug/l	6%	DNA synthesis, cell division, amino acid metabolism
18	Riboflavin	1.83mg/l	60-80%	Prevent ariboflavinosis
19	Vitamin B12	4.4ug/l	90%	Key role in folate metabolism

The milk from cows fed normal levels of vitamin D has been found to contain approximately 40 IU per litre of vitamin D activity.¹⁵ Bovine milk consists of approximately 87% water and 13% such milk solids as lactose, fat, proteins, and minerals. Milk proteins consist of 20% whey (α-lactalbumin, β-lactoglobulin, transferrin, albumin and lactoferrin) and 80% casein proteins (α, β, x - casein). Caseins, which exert significant biological roles, include 45% β-casein has great amino acid balance. β-casein concentrations in A1 and A2 milk are 8.59 and 8.02 mg/mL, respectively.¹⁶

Table5 : Comparison of the nutritional content of A1 and A2.¹⁷

Component	A2 Milk	A1 Milk	References
Energy (kJ/100 mL)	278	270	17
Protein (mg/mL)	~33	~33	17
α -casein	16.37	16.08	18
β -casein	8.02	8.59	18
κ -casein	2.44	2.41	18
β -lactoglobulin	4.50	4.49	18
α -lactalbumin	1.46	1.43	18
Serum albumin	0.45	0.46	18
Immunoglobulins	0.47	0.48	18
Fat (mg/mL)	37	35	17
Carbohydrate (mg/mL)	50	48	17
Sodium (mg/mL)	0.37	0.45	17
Calcium (mg/mL)	1.17	1.20	17

Palliative Care : Palliative care is an approach that improves the quality of life of patients (adults and children) and their families who are facing problems associated with life-threatening illness. It prevents and relieves suffering through the early identification, correct assessment, and treatment of pain and other problems, whether physical, psychosocial or spiritual. Palliative care is required for a wide range of diseases. The majority of adults in need of palliative care have chronic diseases such as cardiovascular diseases (38.5%), cancer (34%), chronic respiratory diseases (10.3%), AIDS (5.7%) and diabetes (4.6%). Many other conditions may require palliative care, including kidney failure, chronic liver disease, multiple sclerosis, Parkinson's disease, rheumatoid arthritis, neurological disease, dementia, congenital anomalies and drug-resistant tuberculosis.¹

Observations : 1) Milk is described under Ksheervarga, Agraya Sangraha, and Rasayana in all three classical texts. 2) Charaka, in Charaka Samhita, has discussed milk in Sutrasthana chapters 1, 25 and 27; Sushruta in Sushrut Samhita has discussed milk in Sutrasthana chapter 45 whereas Vagbhata has discussed milk in Sutrasthana chapter 5,6. 3) Qualities like Swadu, Shitala, and Snigdha were observed and mentioned by all Acharyas. All the other qualities mentioned by Charaka show his keen study and meticulous observation aiding the indication of milk in Chikitsa of various diseases. 4) Based on the indications of milk given by Acharya Charaka, Susruta and Vagbhat milk can be used in Kas, Swas, Pipasa, Raktapitta and Shroma. Milk can be used in specific diseases mentioned above based on Karma. 5) Acharya Charaka, Sushruta and Vagbhata have unanimously accepted Ojavardhana, Jivaniya, Rasayana, Balya and Medhya as functions of milk. But in other ones, there is some difference of opinion. 6) Bovine milk consists of approximately 87% water and 13% such milk solids as lactose, fat, proteins, and minerals. Milk proteins consist of 20% whey (α -lactalbumin, β - lactoglobulin, transferrin, albumin and lactoferrin) and 80% casein proteins (α , β , κ - casein). Caseins, which exert significant biological roles, include 45% β - casein has great amino acid balance. β - casein concentrations in A1 and A2 milk are 8.59 and 8.02 mg/mL, respectively.¹⁶ 7) β - Casein is a major milk protein, representing 30% of the total protein found in cow milk, whose structure can vary depending on the breed and genetic properties of different cows. The 2 major subvariants for this protein are the A1 and A2 types, which differ by an amino acid at position 67. In the A1 type, there is a histidine amino acid in this position, whereas in the A2 type, it is a proline.⁴ 8) It also includes bioactive proteins such as whey and casein (3:1 ratio) that enhance the level of amino acid in the serum, muscle protein synthesis rate, as well as muscle damage repair.³ 9) The benefits of A2 milk on different systems with its probable pathophysiology have been mentioned below.

Table 6: Interaction of Caseins and Different Systems: Possible Diseases and Health Benefits

Sr no.	System	Pathophysiology	Reference article no
1	Gastro-intestinal system	1) A2 milk lacks A1 β -casein and derived BCM-7	(19)
		2) A2 milk has proline at the 67th position which hinders the BCM-7 formation in the human body.	(20)
		3) Since A2 β -casein is broken down into peptides	

Sr no.	System	Pathophysiology	Reference article no
		and then amino acids by an easy digestion process it does not cause any Gastrointestinal discomfort or leaky gut giving complete nutrition.	(21)
2	Lactose tolerance	A2 milk consumption by lactose-intolerant individuals significantly diminished the intolerance symptoms.	(19)
		The consumption of A1/A2 milk was linked with post-dairy digestive discomfort and a high proportion of inflammation markers and BCM-7	(22)
		BCM-7 Exerts Different Impacts On Gastrointestinal Functions such As Declining The Frequency And Amplitude Of Intestinal Contractions. It Also Showed That A1 Milk Feeding On Rats Has An Increment in myeloperoxidase which Is An Inflammatory Marker with 65%. Generally, It Is Mainly Shown That A1 Milk Consumption Causes Systemic Inflammation And Gastrointestinal Mobility Related To BCM-7 Formation During Its Digestion.	(23)
3	Nervous system	BCM-7 can pass the blood-brain barrier and even more, it can activate brain cells which causes some anatomic and functional changes in brain cells showing the potential dangers of A1 milk.	(24)
		Several studies have demonstrated significant associations between higher BCM concentrations and behavioural and psychiatric illnesses such as ASD, schizophrenia and postpartum depression.	(25)
4	Autism and schizophrenia	Research on nervous system diseases (such as autism and schizophrenia), which develop due to low GSH levels in the brain, indicates that BCM-7 binds to the excitatory amino acid transporter 3 (EAAT3) carrier. EAAT3 is responsible for transporting cysteine amino acids into the cell. However, due to its opioid effect, BCM-7 prevents the uptake of this amino acid into the cell, hindering the production of GSH, which is essential for protecting the cell from stress. In a study with a double-blind randomized process involving forty-five individuals, it was demonstrated that consumption of milk containing A1-like variants significantly affects GSH levels. This decrease or disturbance of blood GSH level could potentially lead to the development of neurodegenerative diseases.	(26)
5	Cardiovascular system	BCM-7 formed after A1 milk consumption is also linked with the oxidation process of low-density lipoprotein (LDL). Macrophages absorb oxidized LDL molecules with surface receptors and convert them into foam cells, which promotes atherosclerosis in the heart	(27)
6	Diabetes type 1	Studies On Type 1 Diabetes And A1 β - Casein, A1 Milk Causes Worse Symptoms Of Type 1 Diabetes Due to BCM-7 Formation, Whereas It Is Not Observed In A2 Milk Consumption Does Not Cause Morphine- like Peptide BCM-7 Release	(28)
		The Interactions Of The β - Casein Protein, Glucose Regulation and β - Cells, A Comparison Of A1 Milk	

Sr no.	System	Pathophysiology	Reference article no
		Consumption And Type 1 Diabetes Rates Among Different Countries Found A Remarkably High Correlation ($R^2 = 0.84$)	(29)
		BCM-7 can have immune-altering effects and participate in immune-related events. Nonetheless, β - caseomorphin (BCM-7) might be a trigger for type 1 diabetes through certain pathways. In this disorder, β - cells play a crucial role in autoantigens related to specific glucose transport (GLUT2) and the five amino acid sequences are identical to those found in bovine milk. This similarity is often described as molecular mimicry.	(30)
		The incidence of diabetes in children < 14 years of age across 10 countries who consumed milk protein was reported. The study showed a lower incidence of type 1 diabetes and heart disease among Icelandic children who primarily consumed a2 protein. Bcm-7 peptide was evaluated as a risk factor for this disease.	(31)
7	Atopic Dermatitis	The MOR gene responsible for an Opioid Receptor which is associated with the negative effect of BCM-7 on digestion, immunity and the nervous system was found to be significantly more active because of the A1 milk consumption. The activity of the DPP4 gene, which is responsible for the production of a protein that degrades BCM-7, is decreased in dermatitis patients.	(32)
8	Antioxidant activity	Adequate absorption of cysteine not only provides antioxidant resources for the GI tract but also represents the portal of entry to support GSH concentrations for the entire body. The latter relation was confirmed in a clinical study, where subjects consumed either conventional milk containing both A1 and A2 types of β - casein or milk containing only A2 type β - casein. Using a double-blind, randomized, crossover design, it was found that plasma GSH concentrations were increased by consumption of either A1/A2 or A2 milk, but the increase was 2-fold greater for A2 milk consumption.	(33)
9	Healthy ageing	The A2/A2 feeding group exhibited immunomodulatory effects by altering the levels of specific proteins (such as CD4/CD19) in B and T cells. The results suggested that diets focused on A2 milk could mitigate the negative effects of age-related immune changes such as susceptibility to infections and vaccination response	(34)

on the position of β - casein protein, A1 and A2, due to single nucleotide differences that change the codon at position 67. These casein components are processed by various digestive enzymes which leads to the synthesis of various biopeptides that interact with the systemic organs contributing either to health or to various diseases. Recent investigations

have elucidated that a key polymorphism in the β - casein protein can contribute to the relationship between cow milk and human health.¹⁸

8) A2 milk has proline at the 67th position which hinders the BCM-7 formation in the human body.²⁰ Since A2 β - casein is broken down into peptides and then amino acids by

an easy digestion process it does not cause any Gastrointestinal discomfort, Lactose tolerance or leaky gut giving complete nutrition.²¹This correlates with the action of Deepana, Jivaniya, or Prinana karma of milk and its effectivity in the Grahanidosha and Udara.

9) Several studies have demonstrated significant associations between higher BCM concentrations and behavioural and psychiatric illnesses such as ASD, schizophrenia and postpartum depression.²⁵ this can be correlated with the action of Rasayana, Medhya, Bringhamana and Manashkara of milk and its effectivity in Unmada, Murccha, Bhrama and Mada.

10) A2 milk does not promote the Macrophages to absorb oxidized LDL molecules with surface receptors and convert them into foam cells, which promotes atherosclerosis in the heart.²⁷ This explains the Sandhana, Asthapana and Dhatubardhana action of milk proving its effectivity in Hriddosha.

Conclusion :

A2 cow's milk, particularly from Indian breeds like the Badri cow of Uttarakhand, contains the nutrient-rich A2 beta-casein protein, which is essential for growth and health. Unlike A1 casein, which is associated with several health risks due to the formation of BCM-7 peptide during digestion, A2 casein is considered safer and more beneficial. Existing research indicates that A1 casein consumption may contribute to type 1 diabetes, cardiovascular diseases, digestive disorders, allergen formation, and neurological issues due to the BCM-7 peptide. In contrast, A2 milk's favourable nutrient profile makes it a suitable dietary choice across all age groups, from neonates to the elderly.

Ayurveda and contemporary modern medicine both recognize the holistic benefits of bovine milk. In the context of palliative

care, A2 milk's comprehensive nutritional qualities make it an invaluable component of the diet for chronically ill patients. Its consumption supports energy needs and overall health, aligning with the principles of Ayurveda and modern nutritional science. Thus, integrating A2 milk into palliative care not only enhances patient well-being but also promotes the conservation of indigenous Indian cow breeds, underscoring the multifaceted benefits of this traditional dietary practice

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Fournier's Gangrene- Scrotal Expolration Followed By Secondary Closure - A Case Study

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Introduction : It is also called as idiopathic gangrene of the scrotum. It is a rare condition in which sudden appearance of scrotal inflammation, rapid onset of gangrene and majority of cases no cause can be found out. This condition is considered to be an infective gangrene. There will be fulminant inflammation of the scrotal skin and subcutaneous tissues resulting in obliterative arteritis of the arterioles of the scrotal skin leading into cutaneous gangrene. The causative organisms are haemolytic streptococci, staphylococci, E. Coli, Cl. Welchii etc. It is common in diabetics, old age, malnourished, immuno- suppressed individuals. Clinical features- Sudden appearance of scrotal inflammation-red, swollen, very painful. Patient is toxic with fever, prostration. Within 1-2 days, extensive gangrene of the scrotal skin occurs resulting in sloughing of the scrotal skin exposing the testicles. In some cases, the gangrene can

involve the penile skin, anterior abdominal wall, medial side of thigh, perianal region. In such situations, it is described as perineal phlegmon. Mostly the testis does not get involved in Fournier's gangrene because of thick tunica albuginea.

Fournier gangrene is usually secondary to perirectal or periurethral infections associated with local trauma, operative procedures, or urinary tract disease. Fournier's gangrene is a life-threatening disorder. Complications of Fournier's gangrene-Renal failure, Acute respiratory distress syndrome, Heart failure, Cardiac arrhythmias, Septic metastasis, Urinary tract infection, Stroke, Acute thromboembolic disease of lower extremities. People with diabetes, peripheral artery disease, and Raynaud's disease are at higher risk for gangrene. Symptoms of gangrene include coldness, numbness, pain, redness, or swelling in the affected area. Amputation is sometimes needed.

Aim : Study of the Surgical Management in Fournier's Gangrene.

Objectives : To Study of the Surgical Management in Fournier's Gangrene.

Material And Method :

Name- xyz Age- 45yr Sex- Male Weight- 72 kg Religion- Hindu Occupation- Worker

Main Complaints And Duration : Pain and swelling at scrotal and perianal region Since 2 days, Intermittent fever since 2 days, Foul smelling since 2 days

Past History -

No any Surgical History ,Medical History, known case of Diabetic Mellitus since 10 years. On Treatment - Tab. Glimy 500 mg 1 OD for last 10 years.

Family History-

No any Family History

Physical Examination-

GC- fare and afebrile Pulse- 96 / min BP- 130 / 80 mm of Hg

CVS-S1 -S2 Normal CNS- conscious Oriented

RS- AEBE clear and Normal

P/A- soft Bowel -Passed .Micturition-Clear

General Examination-

No pallor, No Icterus, No regional Lymphadenopathy

Local Examination-

Pus discharge present, Unpleasant odour from the affected skin tissue (Scrotal and perianal region)



Local temp. raised. Fluctuation test - Positive, all signs of inflammation present.

Investigation - Hb - 14.1gm/dl, WBC - 12000/mm, D/C - N - 70%, L - 26%, E - 2 %, M - 2%, B - 0% ,Urine - Pus cell - 4 to 6 sugar, BUL - 27 mg/dl, sr. creatinine 0.8mg/dl,ECG, chest x-ray - normal HIV - Negative HbsAg - Negative.

Treatment and Management - Treatment started with Inj. Piptaz4.5 gm iv TDS inj. Metro 500mg iv TDS, Pan 40 mg iv OD and analgesic started and posted for Initially 1) Incision and Drainage with Debridement with

Scrotal Exploration then 2) Secondary Closure.

Surgical procedure - 1) I and D + Debridement with Scrotal Exploration. 2) Secondary Closure of Scrotal Exploration of Fournier's Gangrene

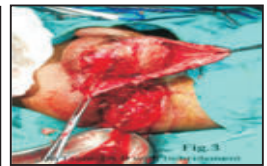
1) I and D + Debridement with Scrotal Explorlation.

Anaesthesia - Spinal Anaesthesia,Position- Lithotomy Position under all aseptic precautions, Painting draping done. Foley's catheterisation done under AAP.

Procedure - Using 5cc syringe sample taken for pus culture and sensitivity. Stab incision taken over the scrotal region at maximum fluctuation site. Pus drained out in kidney tray. Foul smelling present then all pus pocket release by finger.

Incision extended- Debride all dirty tissue -scrotal explosion done. Normal saline, betadine solution and hydrogen peroxide wash given. Dressing done.

Follow up - Foley's Catheter care, Daily dressing upto healthy granulation, IV antibiotics as per Culture and sensitivity report.



2) Secondary Closure of Scrotal Exploration of Fornier's Gangrene-

Anaesthesia - SA. Position - Lithotomy Under all aseptic precautions painting and draping done. Wound granulate with scoop then put a Romovac drain kept at wound site and fixed. Skin closure done with Eithilon 2-0. Dressing done

Follow up - drain remove after 5 days. Stiches removed after 12 days.

Discussion - Fournier's gangrene is a life-threatening disorder in which infection of the perineum and scrotum spreads along fascial planes, causing soft tissue necrosis. If it is not treated properly the whole scrotum is sloughed off leaving the testes hanging exposed. Gradually gangrene spreads to the neighbouring tissues as superficial extravasation of urine. If urgent surgery is delayed, the disease will soon result in septic shock, multi organ failure and death.

Conclusion - In this study concludes that Fournier's gangrene- is still a life threatening condition with high death rates. Diagnosis should be early surgical intervention like Incision and drainage + debridement with scrotal exploration and finally secondary closure or skin grafting along with antibiotics and good supportive care and testicals function are normal.

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औषधीनिर्माणातलं पेटंट !

ऐतिहासिक गौरवास्पद कामगिरी!

प्रा. डॉ. सौ. विनया र. दीक्षित रसशास्त्र विभाग व डॉ. वैष्णवी अ. जोशी पदव्युत्तर संशोधक यांनी Mother Tincture of Nagvalli Patra and Compositions Thereof या अविष्कारासाठी भारतसरकारद्वारा पेटंट प्रमाणपत्र प्राप्त झाले आहे. राष्ट्रीय शिक्षण मंडळ संचालित टिळक आयुर्वेद महाविद्यालय व सेंटर फॉर पोस्ट ग्रॅज्युएट स्टडीज अँड रीसर्च इन आयुर्वेदच्या आजवरच्या कार्यकाळातील प्रथम पेटंट ही ऐतिहासिक कामगिरी आहे. संशोधन क्षेत्रातील या गौरवास्पद सन्मानासाठी प्रा. डॉ. सौ. विनया र. दीक्षित व डॉ. वैष्णवी अ. जोशी यांचे हार्दिक अभिनंदन व भविष्यातील यशस्वी वाटचालीसाठी शुभेच्छा!



औषधीनिर्माणातल पेटंट मिळवणारी पहिली गुरु व शिष्या
- डॉ. सौ. विनया र. दीक्षित व डॉ. वैष्णवी अ. जोशी.

अभिनंदन!

डॉ. सुजाता कदम ह्यांची "All India Institute of Ayurved" च्या

संचालक पदावर नियुक्ती

दिल्ली येथील केंद्र सरकारच्या अखत्यारितील "अखिल भारतीय आयुर्वेद संस्थान" (AIIA) च्या संचालक पदावर प्रा. डॉ. सुजाता कदम ह्यांची दि. १ नोव्हेंबर २०२४ पासून नियुक्ती करण्यात आली. ह्यापूर्वी डॉ. कदम ह्या अधिष्ठाता पदावर कार्यरत होत्या. प्रा. सुजाता कदम ह्या स्त्रीरोग-प्रसूतीरोग तज्ज्ञ असून टिळक आयुर्वेद महाविद्यालयात प्राध्यापक व विभाग प्रमुख म्हणून पूर्वी कार्यरत होत्या.

राष्ट्रीय शिक्षण मंडळ, टिळक आयुर्वेद महाविद्यालय व आयुर्विद्या मासिकाच्यावतीने डॉ. सुजाता कदम ह्यांचे हार्दिक अभिनंदन व शुभेच्छा !



अभिनंदन!

अभिनंदन!

डॉ. सुभाष रानडे ह्यांचा गौरव

नाशिक येथील आयुर्वेद सेवा संघ संचलित आयुर्वेद पत्रिका विभाग आयोजित "Art and Science of Medical Writing - Publishing" विषयावरील दि.१३ ऑक्टोबर २०२४ आयोजित राष्ट्रीय सेमिनार मध्ये इंटरनॅशनल आयुर्वेद अॅकॅडमीचे अध्यक्ष डॉ. सुभाष रानडे ह्यांचा आयुर्वेद क्षेत्रात आंतरराष्ट्रीय स्तरावर केलेल्या योगदानाबद्दल विशेष सन्मान करण्यात आला. ह्या प्रसंगी डॉ. सुनंदा रानडे, डॉ. अ. मो. लेले व डॉ. भारती लेले ह्यांनाही सन्मानित करण्यात आले. सर्व सन्मानार्थींचे आयुर्विद्या मासिक व राष्ट्रीय शिक्षण मंडळातर्फे हार्दिक अभिनंदन !



फोटोत - उजवीकडून - डॉ. एकनाथ कुलकर्णी, डॉ. अभय कुलकर्णी, डॉ. यार्दी, अध्यक्ष डॉ. अंबादास कुलकर्णी, डॉ. रानडे, डॉ. अ. मो. लेले, डॉ. भारती लेले, मान्यवर प्राचार्य डॉ. सोनांबेकर.

प्रा. डॉ. सुभाष रानडे ह्यांची नवीन पुस्तके प्रकाशित

प्रा. डॉ. सुभाष रानडे, प्रा. डॉ. आर. आर. देशपांडे व प्रा. डॉ. स्वाती चोभे लिखित शारीरिक्रिया विषयावरील नवीन पाठ्यपुस्तकांचे प्रकाशन नुकतेच करण्यात आले.

राष्ट्रीय शिक्षण मंडळाचे वतीने डॉ. सुभाष रानडे, डॉ. देशपांडे, व डॉ. चोभे ह्यांचे हार्दिक अभिनंदन.



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ANNOUNCEMENT

All India Conference & International Conference on Shalyatantra and Sangyahan (Anaesthesiology)

UPDATE SHALYA SANGYAHARAN 2024

on 7th & 8th December 2024 at N.I.M.A. Auditorium
of Tilak Ayurved Mahavidyalaya,
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Organizers



R.S.M.'s
C.P.G.S. & R.A.
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Association of
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Of Indian Medicine
(M.S.B.)

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As all of us know, modern surgery and anaesthesia have made tremendous progress in last few decades. Advances made in recent years are really astonishing & so, present surgical and anaesthesia practice has become very safe. But still, side effects occurring due to change in body chemistry cannot be ignored.

Ayurved, the ancient medical science of India can certainly be helpful in allaying such undesired & unwanted side effects. And so, the purpose of organizing this conference is to provide a common platform to the experts, researchers, scholars, professionals & teachers to have exchange of thoughts, to Interact with each others & to present their work on this theme.

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डॉ. अपूर्वा संगोराम, कार्यकारी संपादक

मागील वर्षापासून एन.सी.आय.एम.तर्फे पदवीपूर्व व पदव्युत्तर विद्यार्थ्यांसाठी 'ट्रांझिशनल करीक्युलम' हा पंधरा दिवसांचा प्रशिक्षण कोर्स प्रत्येक महाविद्यालयाने आयोजित करावा असे निर्देशित करण्यात आले.

भारताच्या प्रत्येक कानाकोपऱ्यातून विविध भाषा, विविध सांस्कृतिक पार्श्वभूमी, विविध शैक्षणिक स्तर, वातावरण यामधून पदवीपूर्व व पदव्युत्तर प्रशिक्षणासाठी प्रवेश घेतलेल्या विद्यार्थ्यांना ज्या महाविद्यालयात प्रवेश मिळाला आहे तेथील शैक्षणिक सोयीसुविधा, संस्थेची सर्वांगीण माहिती, महाविद्यालय नियामक मंडळ, प्राचार्य, उपप्राचार्य, अध्यापक, विभाग यांची माहिती करून घेणे, संस्थेच्या नियमावलींची माहिती करून घेणे, महाविद्यालयात चालणाऱ्या घडामोडींची माहिती करून घेणे व महाविद्यालयाच्या वातावरणाशी जुळवून घेता यावे या सर्व उद्देशांसाठी सदर प्रशिक्षण कोर्स आयोजित करण्यात आला.

यानुसार टिळक आयुर्वेद महाविद्यालयाच्या पदवीपूर्व विद्यार्थ्यांसाठी दि. ६/११/२०२४ ते २३/११/२०२४ व पदव्युत्तर विद्यार्थ्यांसाठी दि. ११/११/२०२४ ते ३/१२/२०२४ असा १५ दिवसांचा म्हणजे एकूण ९० तासांचा प्रशिक्षण कार्यक्रम आयोजित करण्यात आला. याशिवाय या वर्षीच्या नविन नियमानुसार पदव्युत्तर विद्यार्थ्यांसाठी ९० तासांचा सर्व विषयांसाठी कॉमन प्रशिक्षण वर्ग व ३० तासांचा संबंधित विषयासाठी असा एकूण १२० तासांचा प्रशिक्षण कोर्स आयोजित करण्यात आला. यामध्ये एन.सी.आय.एम. ने निर्देशित केलेल्या अभ्यासक्रमानुसार महाविद्यालय परीसर, संबंधित विभाग, महाविद्यालयाचे कोड ऑफ कंडक्ट, शिक्षण, संशोधन, इंडस्ट्री, परदेश इ. ठिकाणी काम करणाऱ्या विविध तज्ञांची विद्यार्थ्यांना स्फूर्ती देणारी व्याख्याने आयोजित करण्यात आली. महाविद्यालयाच्या माजी विद्यार्थ्यांचे अनुभव ही शेअर करण्यात आले.

याशिवाय योग, रीलॅक्सेशन टेक्निक्स, संवादकौशल्य, संगणक प्रशिक्षण, डीजिटल लायब्ररी, स्वसंरक्षण, व्यक्तिमत्त्व विकास यासारख्या पूरक विषयांवरही तज्ज्ञांची व्याख्याने आयोजित करण्यात आली. महाविद्यालयाची अधिकाधिक माहिती होण्यासाठी महाविद्यालयाच्या सर्व विभागांना भेटी, महाविद्यालयाचे संलग्न हॉस्पिटल ताराचंद हॉस्पिटल ची भेट व तेथील कामकाजाची माहिती, महाविद्यालयाच्या औषधी उद्यानाला भेट इ. चे आयोजन करण्यात आले. याशिवाय रीजनल आयुर्वेद रीसर्च इन्स्टीट्यूट, पुणे, भारती विद्यापीठ ऑनमल हाऊस व सिम्पुलेशन लॅब, आयुर्वेद रसशाळा इ.

ठिकाणीही विद्यार्थ्यांच्या शैक्षणिक भेटींचे आयोजन करण्यात आले. महाविद्यालयात कार्यरत असणाऱ्या पदव्युत्तर अध्ययनाशी संबंधित आई. इ. सी. आय. आर. बी. अशा समित्यांच्या कामकाजाची माहितीही विद्यार्थ्यांना देण्यात आली. तसेच महाविद्यालयाशी संबंधित नॅक 'राष्ट्रीय मूल्यांकन आणि मानांकन - National Assessment & Accreditation Council आणि एन.ए.बी.एच.- National Accreditation Board for Hospital & Healthcare Providers याबाबतही विद्यार्थ्यांना माहिती देण्यात आली तसेच यामध्ये आवश्यक. Hazmat Kit Demo, Pink Code Training Aspectic Precaution in the Hospital अशा विविध प्रशिक्षणांची माहितीही व्याख्यान व प्रात्यक्षिकांद्वारा देण्यात आली. विद्यार्थ्यांना महाविद्यालयाच्या Pharmacovigilance व ADR Reporting संबंधीही प्रशिक्षण देण्यात आले. विद्यार्थ्यांमधील विषय सादरीकरणाचे कौशल्य आजमावण्यासाठी त्यांना त्यांच्या संबंधित विषयाचे सादरीकरण करण्याची संधीही देण्यात आली. तसेच त्यांना PPT अशा तयार कराव्यात, Journal Club Activity म्हणजे काय याबाबतही प्रशिक्षण देण्यात आले.

थोडक्यात या ट्रांझिशनल करीक्युलमचा जो उद्देश आहे, 'Transformation to Proficient Scholar' इ. यातून सफल झाला असे विद्यार्थ्यांनी दिलेल्या फीडबॅक मधून लक्षात आले.

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रुग्णालयांचा टाहो...

डॉ. सौ. विनया दीक्षित, उपसंपादक

आधुनिक जीवनशैलीने ग्रस्त माणसांसाठी सध्या सर्वसुविधांनी युक्त रुग्णालये ही कुठल्याही धर्माच्या देवालयांइतकीच संपूर्ण विश्वासाची व आवश्यकतेची जागा आहे. इथे जन्मापासून ते शेवटच्या श्वासापर्यंतच्या वयाच्या विविध टप्प्यांतील व वेगवेगळ्या अवयवांच्या, स्वरूपाच्या असंख्य तक्रारी दूर करण्यासाठी आपले तन-मन व धन पूर्ण श्रद्धेने व विश्वासाने डॉक्टरांच्या स्वाधीन करून सामान्य माणसे निर्धास्त होतात.

झाशीच्या रुग्णालयात बालकांच्या अतिदक्षता विभागात शॉर्ट सर्किटमुळे लागलेल्या आगीत काही बालकांनी जीव गमावला, अनेकांना भाजून अधिकच गंभीर प्रकृती निर्माण झाली तर अनेक पालकांचे आक्रोश आगीच्या प्रचंड लोळांप्रमाणेच दाहक झाले. ही घटना अत्यंत दुर्दैवी आहेच. परंतु यापूर्वीही दक्षिण भारतातील मोठ्या मनोरुग्णालयातील अनेक असहाय्य रुग्ण अचानक लागलेल्या आगीच्या भक्षस्थानी पडले होते. अगोदरच रुग्णालयांत वेदनांमुळे वातावरण हे चिंताजनक असते. अशात अतिदक्षता विभाग म्हणजे अधिक काळजीचे रुग्ण, ज्यांना श्वासासाठीही उपचार लागतात असे! त्यातही नवजात शिशू किंवा मानसरुग्ण हे अधिकच परावलंबी व असहाय्य असतात. अचानक उदभवलेल्या अशा संकटात ते स्वतःहून जीव वाचवण्याची धडपड करू शकत नाहीत. त्यामुळे रुग्णालयीन कर्मचारी, उपस्थित नातेवाईक व अग्रिशामक दलासारखे दक्ष सेवक यांचे बचाव कार्य अधिक जबाबदारीचे व अक्षरशः प्राण पणाला लावणारे ठरते.

रुग्णालयांतील विविध सोयीसुविधांनी युक्त यंत्रणा व आधुनिक उपचारपद्धती यासाठी वातानुकूलन व्यवस्था आता अत्यावश्यक बाब आहे. याचबरोबर अनेक शस्त्रक्रिया, प्राणरक्षक प्रणाली ह्या पूर्णतः विजेच्याच वापरावर चालतात. त्यामुळे विद्युत वाहिन्यांचे प्रचंड जाळेच या सर्व रुग्णालयीन

कामकाजाबरोबर विणलेले असते. यांची दैनंदिन देखभाल, दुरुस्ती व अचानक आग लागल्यावर करावयाचे उपाय यासाठी चोख व्यवस्था व योग्य प्रशिक्षण NABH सारख्या प्रमाणिकरण करणाऱ्या निरीक्षण समित्यांद्वारा नेहमीच सक्तीचे केलेले असते. याबाबत सर्व कागदपत्रे व पाठपुरावा तपासला जातोच मगच रुग्णालयांना मानांकनाचे प्रमाणपत्र मिळू शकते.

ही आपत्कालीन जीवन सुरक्षा प्रणाली खरोखरच रुग्णालयांचे जीव संरक्षित करणारी आहे. त्याबाबत अधिक जनजागृती होऊन, दक्षतापूर्वक अंमलबजावणीसाठी अधिक कडक उपाययोजनांची आवश्यकता अशा दुर्दैवी घटनांमुळे अधोरेखित होते. कितीही कायदे व उपाय केले तरी देखभाल व दुरुस्तीच्या कामांची टाळाटाळ करणे, त्याकरिता आर्थिक पुरवठा न करणे, जी कामे होतात त्यांच्या गुणवत्तेबाबत आग्रही नसणे किंबहुना जितके महत्त्व अत्याधुनिक यंत्रोपकरणांना दिले जाते. तितके त्यांना होणाऱ्या विद्युत पुरवण्यासाठी किंवा देखभाल निरीक्षणासाठी दिले जात नाही. अशी कामे दररोज व सैनिकांप्रमाणे पूर्ण दक्षतेने करावयाची असतात हेच रुग्णालयीन व्यवस्थापनांस माहिती नसते किंवा पटत नाही. कोणी निदर्शनास आणले वा तक्रार दिली तरच दुरुस्ती ! तीही अनेक प्रकारचे मान्यतांचे अडथळे व सोपस्कार पूर्ण झाल्यावरच ! ही बाब नक्कीच जीवाशी खेळ ठरते हे वरील घटनांवरून लक्षात येतेच. अजून किती जीव गमावल्यावर रुग्णालयीन प्रशासक वर्ग जागा होईल? रुग्णालयीन प्रशासनाची आद्य कर्तव्यांची प्राधान्यक्रमाने पुन्हा उजळणी करण्याची वेळ आता निश्चितच आली आहे. त्यावर निरीक्षणाची जबाबदारी एरवी मतदानासाठी दारात हात जोडून उभ्या राहणाऱ्या नेते मंडळींनी व सामाजिक कार्यकर्त्यांनी स्विकारावी तरच रुग्णालयीन कामकाजातील आपत्तीजनक ताण कमी होण्यास मदत होईल. झाशीच्या दुर्घटनेतील दुर्दैवी जीवांना शांती लाभो हीच प्रार्थना !



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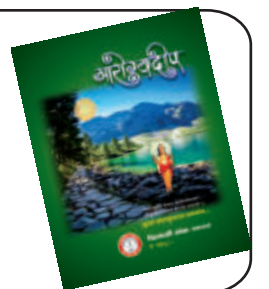
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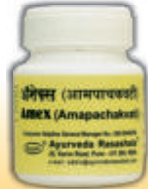
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