MANAGEMENT OF JOINT DISORDERS BY KSHEERAVASTI
Shingade Vijay P.*, M. Srinivasulu, V. Krishna Murthy
P.G. Department of Panchakarma, Dr. B.R.K.R Government Ayurvedic College, Hyderabad, Andhra Pradesh 500038, India

ABSTRACT
Now a days joint disorders are the most commonly occurring in the world. Sandhigata Vata, Vata rakta, Amavata are the common joint disorders. In dhatukshayajanya sandhigata vata and vata rakta, ksheera vasti is helpful. Common symptoms of joint disorders are: Asthishoola, Sandhishoola, Sandhisodha, restriction of movements, pain on movement. Though there are several joint disorders, majority of joint disorders are due to vitiation of vata dosha. Hence, vasti is considered as the main treatment for vata dosha. Specially in dhatukshayajanya conditions, vasti with medicated milk is very useful. Cow milk is the best among all milks. It has same properties like ojas, thus increases ojas. Ksheera is considered as the best in nourishing the asthi dhatu because of its tulyaguna, thus controls the vata dosha. Milk has Snigdha, guru, bahala properties which are similar to that of asthidhatu (tulyaguna). Thus, it counters the rukshatwa and sclerosing effects on the bone, thus increases the unctuousness of joint. It also nourishes the asthidhatu and prevents the bone from osteoporosis. Most joint disorders are due to deficiency of calcium content of bone tissue. Milk contains calcium. So, by giving Ksheera vasti calcium content of bone can be increased. Milk contains almost all minerals needed by the body, Such as Ca, P, Na, K, Mg, Cu, I, Cobalt etc, but particularly it is rich in Ca.

KEY WORDS: Asthidhatukshaya, Ksheera vasti, Tulyaguna, Ca content.

INTRODUCTION
Now a day, joint disorders are most commonly occurring in the world and are alarmingly increasing with age. In India, more number of population is suffering from joint disorders. Joint disorders are more common in females than male. Sandhigatavata, Amavata and vatarakta are common joint disorders described in ayurveda, but sandhigatavata is the commonest disorder among other joint disorders. The commonest causes of joint disorders are: age related degeneration in the bone mass, over exercise and heavy work, overweight, vataprakopaka ahara-vihara, low calcium intake, disturbances in gonadotropic hormones like oestrogen deficiency in females after menopause and testosterone deficiency in males due to hypogonadism, extensive use of corticosteroids etc.
The common symptoms of joint disorders are: asthishoola, sandhishoola, sandhisotha, restriction of movements, pain on movements etc.
Though there are several joint disorders, the common factor for its production is vitiation of vata dosha. Vasti is considered as the main treatment for vata dosha, hence preferred in joint disorders also. Ayurveda considers the relation of vata and asthidhatu while treating the disorders of asthiva srotas (asrayasrayi bhava). Hence, tikta dravya siddha ksheera vasti prescribed by charaka is considered as the best treatment for the joint disorders. In dhatukshayajanya sandhigatavata and vatarakta ksheera vasti is very beneficial.

DISCUSSION
Ksheera is considered as the best dravya in nourishing the asthidhatu. Cow milk is the best among all milks. The properties of cow milk are: Madhura, sheeta, mridu, snigdha, bahala, slakshna, pichhila, guru, manda and prasanna. Due to its mridu, snigdha, slakshna and pichhila guna, it counters the rukshatva and sclerosing effects on the bone, thus increases the sleshaka sleshma in the joint and thus allows the joint to move freely without any restriction. Due to its snigdha, guru, bahala gunas which are tulya gunas it acts as brimhana and nourishes the asthidhatu. Due to guru, sheeta, snigdha...
gunas ksheera controls the vata dosha and helps for nourishment and growth of bone. The chief proteins in the milk are caseinogens and lactalbumin. Caseinogen is a phosphoprotein and is associated with calcium as calcium caseinogenate, so it is rich source of calcium. Milk fat contains saturated as well as unsaturated fatty acids which are useful for the nourishment of asthidhatu. The carbohydrate of milk is lactose, which is useful for calcium absorption. Milk contains minerals like Ca, P, Na, K, Cl etc., but mainly Ca$^3$.

In the disorders of asthivaha srotas tikta samskarit ksheera vasti is very helpful. Tikta rasa is having predominance of akasha and vayu mahabhuta. Hence, it can enter any part of the body specially that part having the similar mahabhuta predominance like asthidhatu. So, the vastidravya prepared with tikta ksheera has capacity to reach the asthidhatu. Usually, tikta rasa aggravates vata, but when processed with milk (samskara), its pharmacological activity is changed and it enables them to promote asthidhatu formation by combination of properties like unctuouness (snigdhatva), dryness (soshanatva) and solidity (kharatvam) and by alleviating vata. which is described by Arunadatta$^4$.

Here, this therapeutic application creates the same atmosphere as in transformation of bone from fat i.e. ‘snigdham soshanam kharatvam’. When sneha of milk is subjected to drying by tikta rasa, solidity and hardness are achieved. The drug having the properties like snigdha, soshana and kharatvam is useful for bone formation and the ksheera vasti prepared with tikta dravyas are having same properties $^5$.

Panchatiktadravyas (Amrutha, Patola, Nimba, Vasa, Kantakari) are the best among all tikta dravyas. So they are used in tikta ksheera vasti. As we are giving tikta dravyas with milk, which is vatashamaka, so it will not aggravate vata. In this way, tikta samyukta ksheera vasti influences asthivaha srotas and its ghatakas. Some of the components of ksheera, like sneha (phospholipids) used in this vasti help in the formation of asthi and majja dhatu, so it prevents bone degeneration and osteoporosis. Vasti directly has its maximum effect on pakwasaya which is also considered as purishadha kala. According to dalhana, purishadha kala is nothing but asthidhara kala and there is definite relation in between these two kalan$^6$. So, it is observed that after giving ksheeravasti in joint disorders, there is relief from symptoms like shoola etc. Most joint disorders are arising due to deficiency of calcium, due to which bone density decreases and degeneration of bone occurs. Milk contains almost all minerals needed by the body, such as Ca, P, Na, K, Cl, Mg etc. but particularly it is rich in calcium. So, by administering ksheera vasti, calcium level can be improved in the body, which in turn repairs the bone tissue.

Absorption of calcium accounts for 20-30 % of total dietary calcium, the remainder is excreted in stool. More calcium absorption takes place in jejunum and ileum. Jejunum absorbs more calcium than ileum. So, for the absorption of calcium content of ksheera vasti, it has to reach the jejunum and ileum. Calcium absorption also takes place in the colon up to some extent$^7$.

According to Ayurveda, vasti not only reaches the pakwasaya but, may also reaches grahani, where the active ingredients of vasti may be absorbed. The microparticles of ksheera vasti may pass through the ileocaecal valve like snehana dravyas and thus reaches to grahani, from where they usually get absorbed and give poshana to respective dhatu (asthidhatu). Modern physiologists also admit that material introduced by enema can pass through the intestinal wall and may reach duodenum and sometimes stomach also$^8$. Charaka has also strongly suggested that vasti should be given in left lateral position, so that it can reach grahani easily$^9$. Sneha has qualities like sookshma and anupravana bhava by which it smears the wall of pakwasaya and passes beyond ileocaecal valve and thus reaches to grahani. Sneha present in milk if insufficient to do that, sneha can be added in ksheera vasti, so that it can reach the grahani.

Like sandhigata vata, ksheera vasti is also helpful in vatarakta. In vatarakta, vitiation of vata and rakta occurs simultaneously. Vasti is the best treatment in vatarakta than any other treatment. Daha is very common condition in vatarakta. So, to control vata dosha and to subside daha, ksheera vasti along with ghrita is prescribed$^{10}$.

CONCLUSION
Ksheera vasti is helpful for the nourishment and growth of asthidhatu. It is helpful in joint disorders like sandhigata vata and vatarakta. It may be useful to increase calcium content of bone, for that further study is required.

REFERENCES
5. Ibid.
6. Dalhana, nibandha sangraha commentery, susruta samhita, kalpa sthana 4/40, chaukhamba orientalia, Varanasi, p.no.574.
7. Sleisenger & fordtrans,Gastrointestinal and liver disease, 8th edition,Elsevier publication, p.no.2177, 2178.