Ayurveda Perspectives of Avascular Necrosis (AVN) and its Management through the Ancient Practices

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Abstract

Avascular necrosis (AVN) is a complex disease influenced by various factors, primarily affecting a younger demographic. If not treated properly it can lead to femoral head collapse and severe joint pain. The characteristics of Avascular necrosis can be correlated with Asthimajjavruta vata according to Ayurveda science. Bhedo-Asthiparvanam, Sandhishula, Satata Ruk, Mamsabalakshaya and Asvapna are major symptoms of disease. Ayurvedic medications and non-medical therapies of Panchkarma may help to halt further necrosis and revitalize bone health. Guggula, Giloy, Raktkari, Patol, Vasa, Babbhula, Shunthi, Pippali, Maricha, Amalaki, Hariyaki and Vibhitaki, etc. are drugs which offers anti-inflammatory and pain-relieving effects in AVN. The Agnikarma as thermal cauterization can stimulate healing if heat applied to the skin or superficial tissues. The other therapies of Panchkarma reduce muscle tension and enhance relaxation thus contributing towards the therapeutic management of AVN.

Keywords: Ayurveda, Avascular Necrosis, AVN, Asthimajjavruta Vata, Pain

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1. Introduction

Avascular necrosis (AVN) is a condition when blood vessels get blocked which supplying bone. This usually affects people of middle age groups and associated with necrosis which involve condition of reduced blood flow. In severe case cell death may occurs especially bone marrow cells. It mainly appears in the long bones like femur, symptom of pain appears in later stage when condition progresses. Flattening of the joint surface also occurs when joint space gets reduced.

The clinical similarities of Avascular necrosis (AVN) can be compared to the Ayurvedic concept of "Asthimajjavatava," which falls under the category of "Vatavyadhis". Asthi dhatu acts as the Asharaya for Vata dosha; similarly increase in Vata dosha can lead to Asthi kshaya. Moolasthana of Majjavaha srotas is Asthi, particularly housing Sandhi majja in Sthulaasthi, Majja provides strength and nourishment to the Sharira. Asthi coexists with Majja within Asthi dhatu. The Vataprakopaka nidanas disrupts Asthi dhatus causing Majja to reside within Asthi which finally results Majjakshya. These disruptions of Vata and Asthi can lead to clinical manifestations like AVN, where compromised blood flow to bone causes bone cell death. This condition further results conditions like AVN, Bhedo asthiparvanam, Sandhishula, Satataruk and Mamsabalakshaya, etc. These symptoms reflect the impact of disrupted Vata and Asthi dhatus balance, leading to bone and muscle problems. (1-4)

Asthimajja gata vata according to Ayurveda related to bone and nerve tissue which mainly arises due to the Aharaja, Viharaja and Mamsaja Nidana, etc.

2. Nidana of Asthimajjagata vata (AVN)

❖ Anashana
These factors cause Dhatukshya, Margavarana, Atipravarti and accumulation of Dosha. Vata aggravation results in confluence of Dosha and tissues within Asthi-Majja, which finally leads to tissue depletion of bony structures. The primary symptoms of bone and nerve tissue depletion include following symptoms (4-6):

- Saushirya

- Alpashana
- Katu and Kashayarasa pradhana ahara
- Ati Shrama
- Ati-Chinta & Shoka.

The imbalance in Dhatvagni related to Asthi Dhatu disrupts the formation and nourishment of bone tissue which further alter process of formation of Majja. The symptoms associated with progressive stage of Asthimajjagata vata (AVN) is depicted in Figure 1. Aswapna, vision problems, dizziness, hollow bones and bone fragility, etc. also arises with untreated state of AVN. (6-8)

3. Treatment

Udvarthana and Vashpa Swedana help to eliminate Srotorodha and promote Sthiti karana of Angas. Rakshana can be employed to remove Avarana caused by Kapha which improves efficacy of subsequent treatments by improving bioavailability of drugs. Mridu Shodhana is recommended for Vatadosha and Brimhantha therapy also suggested for nourishment purpose. Patra Pinda Sweda offers Sandhichestakara, Srotosuddhikara and Kapha-Vatanirodhana properties. This treatment can reduce pain, stiffness and provides analgesic effects by alleviating Vata Dosha. Yoga Basti can be employed due to its Vatashamana properties. Oil and Ghrita used in Anuvasana Basti mainly indicated for Asthi Aashtrita Vikara since it offers Tikia Siddha. The oil's properties such as Snigdha and Guru help to pacify Vata Dosha.

Raktavaha Srotorodha becomes the primary cause of depletion of Asthi Dhatu therefore Manjishthadi Ksheera Basti advocated for addressing issue of Rakta Dushti. The Madhura and Snigdha properties of Basti Dravyas help in controlling Vata Dosha and nourishes Rasadi Dhatu. Manjishthadi Kwatha can also be used for its Raktaprasadaka and Tridoshha balancing properties. (5-7)

4. Drugs/Formulation for AVN:

- **Panchikta Ghrit Guggulu**: This formulation offering anti-inflammatory and detoxifying properties helps in purifying blood.
- **Abha Guggulu**: This drug relieves pain in muscles, ligaments, bones and joints, also imparts anti-inflammatory property.

**Rasarajeswar Rasa**: This formulation enhances muscle and bone strength, serves as an pain reliever and anti-inflammatory agents.

**Rasnasaptak Kwatha**: This drug is considered effective in reducing joint pain, stiffness and swelling, etc.

**Brihat Vatachintamani Rasa**: This formulation targets Vata dosha, providing relief from pain and stiffness.

Agnikarma, as thermal cauterization or heat therapy plays a limited role in AVN due to the nature of the condition and the areas affected. AVN primarily affects the bones, since Agnikarma involves applying heat to superficial tissues; its direct application to the affected bone tissue is not feasible therefore less effective. However, Agnikarma may not directly address AVN, it can be used as an adjunct therapy for managing pain associated with the condition. Stimulating nerve endings and promoting the release of endorphins, heat therapy can provide temporary relief from pain and discomfort. Agnikarma may be considered as a complementary therapy alongside other treatments for AVN. It reduces muscle tension, enhance relaxation and have some benefits in managing pain.

**Pathya**

a) **Nidana Parivartana**

b) **Ahara**:

- Snigdha Ahara
- Madhur Ahara
• Guru Ahara

c) Vihara:
• Avoiding staying awake at night
• Moderate physical exertion
• Avoiding suppression of natural urges

d) Apathya:
• Anupathya Parivarjana
• Ahara:
• Ruksha
• Amla
• Tikshna

e) Vihara:
• Overeating or fasting for prolonged periods
• Excessive physical exertion

5. Conclusion

Avascular necrosis (AVN) can be correlated to the Asthimajjagata vata which is a disorder deeply rooted in tissue imbalance and considered as Asadhyya Vyadhi. However, if it arise Chirasamutthitha, then it can become Sadhya. Avascular necrosis is influenced by various factors, including Anashana, Alpashana, Katu and Kashayarasa pradhana ahara and Ati-Chinta & Shoka, etc. The features of AVN include Bheda-Asthiparvanam and Sandhishula, etc. Ayurvedic treatments and non-medicinal Panchkarma therapies may prevent further necrosis and improve bone health. Medications like Guggulu, Giloy and Kantkari, etc. offers anti-inflammatory and pain-relieving effects. Panchkarma therapies can also ease muscle tension and promote relaxation, thus helps in the AVN's therapeutic management.

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Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

References