TREATMENT OF ASTHIMAJJAVIDRADHI BY BHEDANA KARMA–A CASE REPORT

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ABSTRACT
In Ayurveda Sushruta explained the concept of Asthi Vidradhi in Sushrut Samhita Nidanstanth -9/33, 34 which can be resemble like Brodie’s Abscess. Asthi Vidradhi is developed anywhere in the bone due to asthi and majja dushti by vitiated dosha. A case of Asthi Vidradhi (Brodie’s abscess) at Vam Antarjranghasthi (Brodie’s Abscess at Left Tibia proximal end anterior aspect). Brodie’s abscess is localized collection of pus in the metaphysis of bone. Brodies’s abscess is common at upper end of tibia. Brodie’s abscess usually cause by Staphylococcus. It can also develop due to tuberculosis, typhoid, and syphilis also. Prevalence of osteo-articular tuberculosis is 1-3%. The character of the brodie’s abscess is during attack pain increase on walking and worsens in night which relieve on rest. It can lead to pathological fracture. This abscess has potential to develop osteogenic sarcoma. Slow evolution remains an essential factor in diagnosis delays. A 28 years old female presented with complaints of swelling at left knee joint anteriorly since 6 months. MRI Scan of left knee joint shows- A well defined sub cortical infective erosive lesion in the proximal shaft of tibia. Overlying soft tissue shows an infective collection. Possibility of Brodie’s abscess. Patient was operated for Curettage of Brodie’s abscess under spinal anesthesia. Tuberculous Osteomyelitis was diagnosed from HPE reports. Patient took AKT (Anti-Koch’s Treatment) regimen for 9 months for tuberculous osteomyelitis and 3 months alternate day dressing, follow up till wound healed well.

Keywords: Asthimajja Vidradhi, Brodie’s abscess, Skeletal tuberculosis, Surgery.

INTRODUCTION
Asthimajjapareepako ghora samupjayate ||  
Soasthimsnirondhen dvaram na labhate yada ||  
Tatah sa vyadhina ten jvalanenev dahyate ||  
Sushrut. Nidanstanth -9/33, 34[1]  
Aggravated doshas causing vitiation of Asthi and Majja, produce swelling, anywhere in bone with jvalanvat vedana, chirkal (chronic), mild pain, fever, variable size, developing slowly and ripening (forming pus) this disease is called as Asthimajja Vidradhi (Brodie’s abscess/ subacute osteomyelitis).  
Paryagate vidradhi tu sidhhirnekantikee ||  
Pratyakhyay tu kurveet majjajate tu vidradha ||  
Snehswedoppannanam kuryatraktavsechanam ||
Vidradhyuktam kriyam kuryat pakvevasthi tu bhedayet\[2\]
Sushrut.Chikitsasthan -16/39,40,41.\[2\]

According to Sushrut Asthimajja Vidradhi is difficult to treat. Treatment includes snehan, swedan, raktavsechan in unripe stage of abscess and Bhedana Karma (Curettage) on ripening (liquefying) of abscess. Brodie’s abscess is the localized form of infection, which is usually situated at metaphysis of long bone. \[3\] It also known as subacute osteomyelitis. \[4\] This condition usually causes by Staphylococcus. It can also develop due to tuberculosis, typhoid, syphilis also. More commonly seen on tibia and humerus. The recurrent attack of pain with swelling, typical pain worsens at night and increases on walking, relieve on rest. X-ray shows translucent area with a well-defined margin and surrounding sclerosis,\[5\] beyond which the bone looks normal. MRI (Magnetic Resonance Imaging), CT scan (Computer Tomography) is helpful in diagnosis. Surgical Curettage is usually curative which gives better results. \[6\] In Ayurved Sushrut mentioned Bhedana Karma (curettage) as treatment of Asthimajja Vidradhi. \[7\] An unusual case of Brodie’s abscess was reported whose diagnosis was made after 6 months of appearance of swelling which successfully with Bhedana Karma (curettage).

CASE REPORT:
A 28 years old female presented with complaints of swelling at left knee joint anteriorly since 6 months. On clinical examination there was a painful swelling at left tibia proximal end anteriorly of size approximately 3×2×2 cm, tender on palpation, firmly attached to bone. Patient complaints of left knee joint pain and swelling since 6 months, evening rising temperature since 2 months, history of weight and appetite loss since 2 months. The pain was severe in night and increase on walking enough to disturb sleep or daily physical activities. The patient reported that she first palpated the swelling 6 months ago that grew up very slowly to the current size. There was a no family history of associated clinical features. Patient had no history of any major illness and surgical history.

(X-ray Left Knee Joint)
X-ray Left Knee joint showed that a translucent area with a well defined margin and surrounding sclerosis. Swelling size approximately 3 × 2 cm on left tibia proximal end anteriorly.? Suggestive of the osteomyelitis.

(MRI Left Knee Joint –Film 1)

(MRI Left Knee Joint –Film 2)

(MRI Left Knee Joint –Film 3)
MRI Scan of left knee joint shows a well defined sub cortical infective erosive lesion in the proximal shaft of tibia. Overlying soft tissue shows an infective collection. Possibilities are – Brodie’s abscess - acute on chronic bone abscess, neoplastic lesion. Patient was operated for Curettage of Brodie’s abscess under spinal anesthesia after physician fitness. Surgical exploration brought to light that - dark coloured pus collection and bony fragments with bone erosion.
After surgery the sample sent for histopathology examination. Tuberculous Osteomyelitis was diagnosed from HPE reports. Patient took AKT (Anti-Koch’s Treatment) regimen for 9 months for tuberculous osteomyelitis and 3 months alternate day dressing, follow up wound healed well with no pain/ no fever/ no sensory motor deficit.

**DISCUSSION**

Brodie’s abscess common site is tibia and humerus.[8] Clinically they present as mild symptomatic slow growing swelling on bone with fever, pain increase on walking which worsen at night, relieve on rest. Pre-operative diagnosis of cause of brodie’s abscess is difficult. Furthermore due to their rarity, these bony abscesses are often not even taken into consideration in the D/D - Infective osteomyelitis, Enchondroma, Osteosarcoma. Malignant transformation of Brodie’s abscess is osteosarcoma. The slow growth pattern (Chirvruddhi) of to the pressure effects. Infection produces cavities and surrounds bone sclerosis.[9] The slow growth and nervous adaptation to the increased volume of the Brodie’s abscess is often the factor responsible for the diagnostic delay. MRI left knee joint provide useful information about morphological data on the bony abscess and also provide information regarding extent, anatomical location, size and relationship of peripheral tissue and appropriate planning of surgical therapy and preoperative diagnosis.

Surgical curettage[10] is the treatment of choice. Acharya Sushruta mentions Bhedana Karma (Curettage) for Asthimajja Vidradhi chikitsa. In this case curettage is done as main surgical treatment followed by AKT treatment. This case is successfully treated with Bhedana Karma (Curettage).

**CONCLUSION**

Sushrut Samhita Acharya Sushruta says Bhedana Karma as definitive treatment of Asthimajja Vidradhi (Brodie’s abscess), which can effective in present era.