"AN OBSERVATIONAL STUDY TO ASSESS *MAJJA DHATU* WITH THE HELP OF *ASTHIKSHANA LAKSHANA* WITH SPECIAL REFERENCE TO BONE MINERAL DENSITY"



Dissertation submitted as partial fulfillment for the degree of

Ayurveda Vachaspati [Doctor of Medicine Ayurveda]

Speciality - Kriya Sharir

Scholar

DR.KAUSTUBH MANI TRIPATHI

Under the supervision of

Guide

DR.SUNIL.P.NIKHATE

M.D. (Ayu)

H.O.D. & ASSO. Professor

Department of Kriya Sharir

DEPARTMENT OF KRIYA SHARIR PARUL INSTITUTE OF AYURVED PARUL UNIVERSITY, LIMDA, VADODARA GUJARAT – 391760 (INDIA).

June-2020

Enrollment No. - 170202203006

ABSTRACT

TITLE - AN OBSERVATIONAL STUDY TO ASSESS *MAJJA DHATU* WITH THE HELP OF *ASTHIKSHANA LAKSHANA* W.S.R. TO BONE MENIRAL DENSITY SCHOLAR - DR.KAUSTUBH MANI TRIPATHI

GUIDE - DR. SUNIL P. NIKHATE ASSO. PROFESSOR & H.O.D.

DEPARTMENT- KRIYA SHARIR

Introduction:

Health is the ultimate cornerstone for satisfying healthy life. Ayurveda's aim is to achieve physical, emotional, social, and spiritual well-being by following the preventive and promotional approach, as well as treating the diseases with different remissive approaches.

All Dhatus are developed from *Panchamahabhuta* during embryonic life. During the development of fetus, due to its own reasons Dosha become intensified. According to *Kshirdadhi Nyaya*, *Purva Dhatu* is responsible for the formation of next Dhatu. We get knowledge about relationships between *Asthi dhatu* and *Majja dhatu* detoriation of *Asthi dhatu* reflect in to Majja dhatu due to improper transformation.

Hence the present study were taken to observe and to assess *Majjadhatu* with the help of *Asthikshaya lakshana* with special reference to Bone mineral density.

Aim and Objectives:-

1. AIM-

An observational study to assess *Majjadhatu* with the help of *Asthikshaya lakshana* with special reference to Bone mineral density.

Objectives :-

1. To assess the *Asthikshaya* with the help of Bone mineral density.

- 2. To assess Majjadhatukshaya & Majjadhatu sarata.
- 3. To assess the relationship between Asthikshaya & Majjakshaya and type of Majja sarata.
- **4.** To observe status of *Majja Dhatu* on the basis of BMD, *Majjadhatukshaya* and *Majjadhatusarata*.

Methodology:-

Volunteers who fulfill the eligibility criteria was selected and who are voluntarily willing to participate in the study and assessed their Majja dhatu. Randomly persons were screened for *Asthikshaya* with the help of B.M.D. Screened individuals osteoporosis / Osteopenia were included in study. These individuals were assessed for *Majjakshaya* and majja Sarata according to subjective parameter made for the same. Observed data were analyzed with appropriate statistical test.

Ethical clearance:

Was received from the Parul Institute of Ayurveda Institutional Ethical Committee, University of Parul. (IEC No: PU / PIA / IECHR/2019/5) .and Clinical Trial Registry registered in India [CTRI/2019/04/018436][Registered on: 01/04/2019]

Observations and Results:

Total 222 willingly volunteers screened for Bone mineral density test where as 68 was found in inclusion criteria,48 were Osteopenic and 20 were Osteoporosis.14 were found in *Heena majja* <u>sarata</u> with having osteoporosis & 48 were found in *Madhyam Majja Sarata* with having Osteopenic and 06 were found Osteoporosis with having madhyam Majja sarata.

Discussion:

Ashrayashrayi sambandha, Asthi is the seat for vata Dosha if vata Dosha gets increased asthi gets reduced vice versa. Due to Ashrayashrayi sambandha the essence of Asthi dhatu depends on vata Dosha and Ashrayashrayi bhav sambandha, having the property of Ruksha, Laghu, khara, guna of vata dosha. The severe decrease of Majja Dhatu in the body results in certain signs and symptoms such as Soushiyra, Shiryanta, weakening of the bone and other forms of bone pain.

An observational study to assess *Majjadhatu* with the help of *Asthikshaya lakshana* w.r.t. to Bone Mineral Density

Conclusion:

Majjakshaya is found in person with Osteopenia and osteoporosis. In the same individuals Heena and *madhyam Majja dhatu sarata* is found. It is concluded that-*Majja dhatukshaya* and *Heenasarata* are found similar to *Asthikshaya*. There is a relationship of "Heena majja *sarata* with *Asthikshaya* in relation to *Majjakshaya*" is proved. Thus the Null Hypothesis is rejected.

So it was a attempt observationally to assess *Majjadhatu* with the help of *Asthikshaya Lakshana* with special reference to Bone mineral density.

Keywords: madhyam Majja dhatu sarata, Osteopenia & osteoporosis.