



**A VIEW ON CONCEPT OF JANUMARMABHIGHATA LAKSHANA IN
POSTOPERATIVE LIFE STYLE AFTER TOTAL KNEE-REPLACEMENT SURGERY**

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ABSTRACT

Acharya Sushruta's concept of marma mainly deals with the vital part of the body where union of 5 elements i.e. Mamsa, Sira, Snayu, Asthi and Sandhi were taken place. Janumarma is one of the 107 marma described by Acharya sushruta. Janumrama i.e. knee joint is frequently get injured joint of the body as it is more prone to get injured while performing sports activity, bike riding etc. knee joint also get involved in disease such as osteoarthritis, osteoporosis. Though advancement in modern science have overcome such disease by surgical procedure such as Total knee replacement, Patellectomy, Meniscal repair etc. quality of life of individual still get hampered if such disease affects the area of marma entity. These shows the importance of concept of marma and its vitality.

KEYWORDS: Acharya Sushruta's concept of marma and its vitality.

INTRODUCTION

Marma and its entity have a prime importance since ancient time as it is a very importance sites within the body where fusion of Mamsa, Sira, Snayu, Asthi and Sandhi with prana take place.^[1] Marma is a place within the body where any injury may lead to some serious damage or even death or death like symptoms.^[2]

Vaiklyakara marma is one of the 5 variety of marma which when get injured cause severe pain and also cause deformity of that particular organ where it resides.^[3] Janu marma is one of the vaiklyakara and Sandhi marma which is located in the joint between Leg and thigh i.e. knee Joint.^[4] Knee joint is the union of three bones i.e. femur, tibia and fibula, which is the location of janu marma. Injury to Janu Marma will leads to symptoms such as Khanjata which means walk with improper gait or walk with limp.^[5] Janu Marma injury leads to improper gait or walk with laming certainly going to hamper the routine of individual. As multiple structure contributes to form the janu Marma its hard to identify the most vulnerable structure which is responsible for causing khanjata.

Knee joint is one of the most vulnerable joint to get injured while performing routine activity as well as sport activity. As per modern view we can traced the location of Janu Marma around the knee Joint. Knee joint is complex, Synovial and Saddle variety of joint present in

the lower limb. Knee joint comprise of bones, muscles, bursa, nerve, blood vessels and ligaments which guiding the different movement of knee joint.^[6]

Aim

To evaluate the effect of janumarmabhighata in patient undergone the total knee replacement surgery.

MATERIAL AND METHODOLOGY

Study was conducted in 2 phases. 1. Cadaveric Phase 2. Clinical Observation Phase

Cadaveric phase

Dissection of knee joint were carried out to understand the entity of Janumarma and strcture that comes under its entity.

10 patients undergone Total knee Joint replacement surgery were selected for the study. With the help of goniometer and Koos Pain score assessment of quality of life of patient after undergone surgical procedure were measured.

Materials

- Literary data will be collected from Ayurvedic literature, modern texts, internet, scientific journals, presented papers and previous research works done.
- Patient diagnosed with knee injury.

- Radiographs.
- Goniometer.
- Koss Pain scale with questioner will be used for pain analysis.

Inclusive criteria

- Patient undergo Total Knee Replacement
- Age between 20-50
- Irrespective of gender

Exclusive Criteria

- Mentally Retarded
- Pregnant
- H/o amputation
- Congenital deformities

OBSERVATION ON CADAVERIC PHASE

Cadaveric Phase

Dissection of 2 Cadaver and 4 knee joints was performed at Rachana Sharir department of Parul Institute of Ayurveda, Parul University, Vadodara to identify the Structure underlying the surface of Janu Marma and to identify the structures contributing in the formation of the Janu Marma.

For anguli pramana measurement, Horizontal length from middle phalanx of index finger up to middle phalanx of ring finger was measured. Length from middle phalanx of index finger up to ring finger was 6 cm.



(Fig No.1 Measurement of 3 Angula).

For identify the surface anatomy of Janumarma, midpoint of patella is taken as a centre point. From the midpoint i.e. the centre point of patella one circle drawn have 6 cm of radius and which is considered as a surface area of Janu marma. For depth measurement of Janu marma, nail paint done up to mark of 6 cm and nail was inserted on the centre point of patella to identify the structure found under the surface area of knee joint.



(Fig No.2 Nailing on centre of Patella).

1st Horizontal Skin incision was taken at the anterior part of junction between upper 2/3 and lower 1/3 of front of thigh.^[7]

2nd Horizontal incision was taken from the anterior part of junction between upper 1/3 and lower 2/3 of leg.^[8]

3rd Vertical incision was taken from the midpoint of 1st incision up to the midpoint of 2nd incision.^[9]

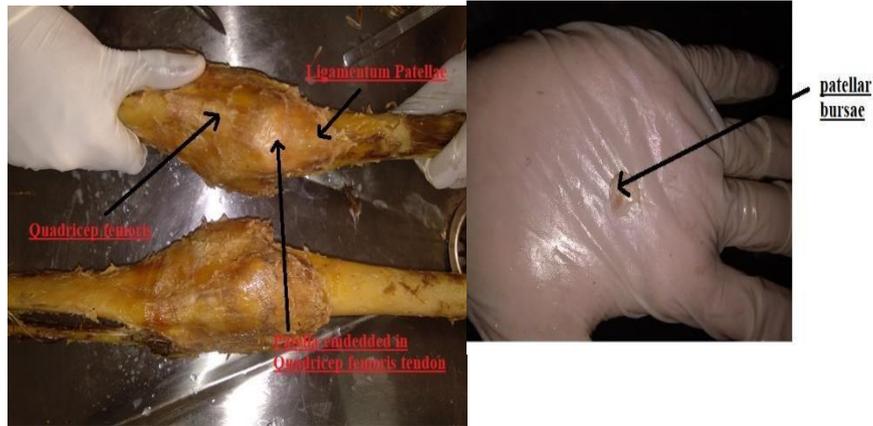
4th Reflection of skin and superficial fascia. 5. window dissection of Janumarma was conducted.

Structure seen under the skin

- Superficial fatty layer
- Deep fascia
- Patellar plexus

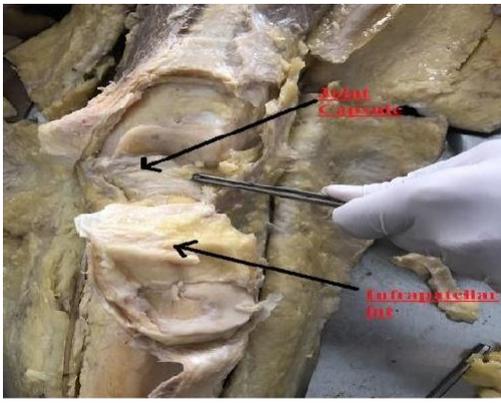
Structure seen under the deep fascia

- Patella
- Ligamentum patella
- Quadricep femoris tendon
- Bursa



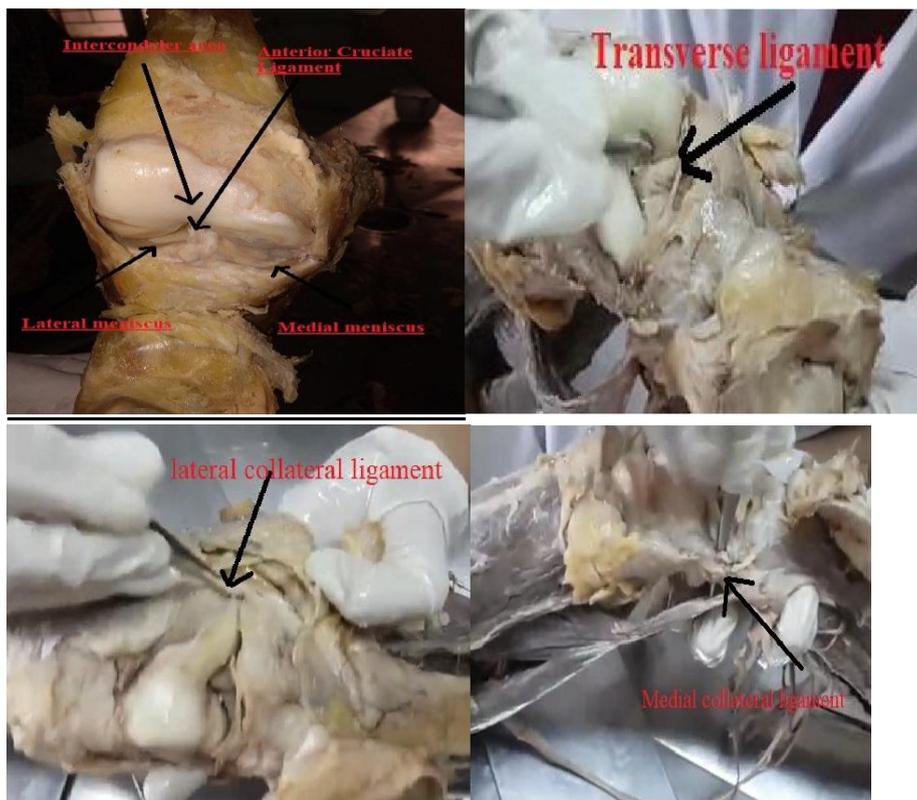
Structure found under the patella

- Infrapatellar fat
- Joint capsule
- Patellofemoral joint



Structure seen under the knee joint capsule (on bending knee joint)

- Anterior cruciate ligament
- Intercondylar area of femur
- Medial meniscus
- Lateral meniscus
- Coronary Ligament
- Medial collateral Ligament
- Lateral collateral Ligament
- Transverse Ligament
- Tibiofemoral joint



Observation on Clinical Data

Sr. No	Active Flexion	Passive flexion	Active extension	Passive extension	Koos Score
Pt.1	80	86	0	10	78
Pt.2	70	70	0	0	72
Pt.3	100	110	10	10	68
Pt.4	60	70	0	5	98
Pt.5	70	80	0	5	80
Pt.6	78	82	10	10	88
Pt.7	110	110	10	10	50
Pt.8	59	65	0	0	90
Pt.9	72	78	10	10	67
Pt.10	80	80	10	15	72
Avg	77.9	83.1	5	7.5	76.3

DISCUSSION

Clinical data shows significant reduced in degree of range of motion in patient under go Total knee replacement procedure. Normal degree of range of motion for active flexion is around 110-120 degree which goes noticeably reduced with average of 77.9. Normal degree of range of motion for passive flexion is around 120-130 degree which goes noticeably reduced with average of 83.1. Normal degree of range of motion for active extension is around 5-10 degree which goes noticeably reduced with average of 5. Normal degree of range of motion for passive extension is around 10-15 degree which goes noticeably reduced with average of 7.5.

Koos pain score is assessment questioners for quality of life of patient suffer from knee joint pain. Above clinical data shows that Koos pain score goes significantly down in patient who undergone the procedure of total knee

replacement. Hence, quality of life of individual who gone under the Total knee replacement procedure get hampered with disturbed range of motion of different movement of knee joint.

Though advancement in surgical aspect resolve the problems at some extent, still its hard to overcome the effect of marmabhighata Lakshana which again prove the vaikalyakara effect of janumarma.

Patient undergone the Total knee replacement though have relief in pain still have hampered quality of life and restricted knee movement which shown the vaikalyakar effect of janumaram.

CONCLUSION

On the basis of current study following conclusion has been made.

1. Khanjata i.e. the vaikalyakara effect of janumarma

found even in patient undergone the operation of total knee replacement.

2. Though Advancement in surgical aspect give some short of relief, but can't neutralize the effect of Janumarmabhighata.
3. Quality of life of individual get hampered when marmabhighata take place.

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