



**A CLINICO ANALYTICAL STUDY ON PADAGATA  
KURCHASHIRA MARMA WITH SPECIAL REFERENCE  
TO ITS MARMABHIGHATA.**

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**ABSTRACT**

Ayurveda the science of life deals with preserving health of an individual by physical, mental and spiritual means. It defines human body by dividing it into six parts so-called Shadanga. Even though all the parts of the body are significant, there are vital spots called Marma which are more substantial. Marma is considered as the point where there is conglomeration of five human basic structures like Mamsa, Sira, Snayu, Asthi and Sandhi. These specific locations are explained under the impression of Marma Shareera in Ayurvedic classics. Injury to Marma pradesh leads to termination of life or may result in disabilities. Consequently understanding and awareness of Marma from surgical point of view is very essential.

Existing work has been taken up with an idea of apprising early concept of Padagata Kurchashira Marma and their Viddha Lakshana in view of modern applied and regional anatomy. Applied anatomy offers knowledge of application of anatomical knowledge for diagnosis, treatment and prognosis too.

In this study pain is one of the main features of injury, it is classified under the category of rujakara marma and Predominantly Snayus are involved so it comes under the heading of Snayugata marama.

So a humble effort is made for the better understanding of Padagata Kurchashira Marma and their Viddha lakshana in this study. Regional anatomy is studied with the help of cadaver dissection and their applied anatomy is listed based on examining clinically and radiologically Ruja and Shopha present in all the patients due to involvement of Mamsa, Sira, Snayu, Ashti, Sandhi.

**Keywords:** Koorchashira, Marma

**INTRODUCTION**

It describes human body by dividing it into six parts called shadanga. Even though all the parts of body are significant, there are vital spots called marma. There is a vital force which is driving the life of mankind which is called prana.

Marma is considered as the point where there is conglomeration of five human basic structures like mamsa, sira, snayu, asthi and sandhi. These specific locations are explained under the concept of marma shareera in classics.

Marma is defined as the conglomeration of mamsa, sira, snayu, asthi and sandhi where the prana dwells<sup>1</sup>

## **CLASSIFICATION OF MARMA <sup>2</sup>**

All the 107 marmas<sup>4</sup> are classified into five different groups

1. Structural classification (Asrayabhedenā)
2. Regional classification (Shadangbhedenā/ Avayavabhedenā)
3. Prognostic classification/ Traumatological classification (Vyapathbhedenā)
4. Dimensional classification (Maanabhedenā)
5. Numerical classification (Sankhyabhedenā)

### **1. STRUCTURAL CLASSIFICATION <sup>3</sup>**

According to Sushruta, marma vasthus are Mamsa, Sira, Snayu, Asthi and Sandhi. He classified marmas according to the predominance of structures present in that area such as Mamsa marma, Sira marma, Snayu marma, Asthi marma and Sandhi marma. He also said that apart from these 5 types no other types are found<sup>3</sup>

### **2. REGIONAL CLASSIFICATION <sup>4</sup>**

Among 107 marmas, 44 marmas are present in the Sakthi (11 in each extremities), 3 in Koshta, 9 in uras (thorax), **14 in prushta (back)** and 37 Jatroordhwa part (head and neck).

### **3. PROGNOSTIC CLASSIFICATION**

Based on the prognosis of marmabhigata, it is divided into five types by Sushruta and Vagbhata. They are Sadyopranahara, Kalantarapranahara, Vishalyaghna, Vaikalyakara and Rujakara.<sup>5</sup>

### **DIMENSIONAL CLASSIFICATION <sup>6</sup>**

According to the dimension of marma, it is divided into 5 types they are Swa – panitala , Ardhangula , Ekgangula , Dwayangula , Trayangula .

## **KURCHASHIRA MARMA**

It is defined as the shira of kurcha<sup>7</sup>.

**Location:**

Kurchashira marma is present below the gulpha sandhi on both sides<sup>8</sup>.

**Classification:**

Stananusara : adho shakha

Rachananusara : snayu marma

Pramananusara : one angula

Parinamanusara : rujakara

Panchabautikatwa : agneya and vayavya

**AIMS AND OBJECTIVES OF THE STUDY**

1. Anatomical study of the PadagataKoorchasiraMarma
2. Applied anatomy of Padagata Koorchasira Marma and their Vidha

**METHODOLOGY**

**i. Source of data:**

**Literary data:**

The literary and conceptual study will be on the data compilation of Bruhatrayis, previous work done and will be correlated, analyzed with their knowledge of contemporary science on the subject.

Dissection of 10 heels of cadavers will be done in region of Padagata Koorch sira Snayu Marmas in the dissection hall of Parul University, Limda, WaghodiyaVadodara, Gujarat and Government Ayurvedic Medical College, Bengaluru.

Anatomical structures located in that region will be observed and analyzed and will be correlated in the view of ancient description of Koorcha sira Snayu Marma.

**Clinical data:**

Patients attending OPD & IPD of Government Ayurveda Medical Hospital Bengaluru fulfilling the inclusion and exclusion criteria of disease will be selected for the study.

**ii. Methods of Collection of Data:**

- Literary work books, journals including all published on the concept related to the subject will be reviewed and related information will be collected and analyzed scientifically.
- Dissection of 10 heels of cadavers will be done in the region of PadagataKoorchsiraSnayu Marmas and anatomical structures located in that region will be observed and analyzed and will be correlated in the view of ancient description of KoorchasiraSnayuMarma.
- Patients presenting with Ruja (pain) and Shopha (swelling) in foot will be screened out at both OPD and IPD level.

- Investigated clinically for
- X Ray. (CT or MRI if required).
- Collected data will be analyzed.
- Exact location and structures will be studied clinically. (with the help of radiology)

### **iii. Study Design:**

- 1. Literary**
- 2. Observation**

- a) Dissection of 10 heels of cadaver will be done.
- b) 100 patients suffering from pain and swelling of foot will be selected.

### **iv. Inclusion Criteria:**

- Subjects presenting with Ruja(pain) and Shopha(Swelling) of Pada
- Subjects of both sex and all age group.
- Patients willing to give the consent.

### **V.Exclusion Criteria:**

- Subjects with systemic diseases, amputated leg and carcinoma.

### **Vi. Assessment Criteria:**

#### **1. Subjective Parameters:**

- Shopha(Swelling)
- Ruja(Pain)

#### **2. Objective Parameters:**

- Tenderness of foot.

Lakshanas with special reference to its Marmabhighata

### **OBSERVATIONS AND DISSECTION**

- Snayu Marma Vasthu : Inferior extensor retinaculum, Tendons of tibialis anterior, Extensor hallucis longus, Extensor digitorum longus, Peroneus tertius, deep peroneal nerve, Apex of plantar aponeurosis since it is the modified deep fascia. As snayu is the binding material, plantar aponeurosis can be considered here.
- Mamsa Marma Vasthu : Flexor digitorum brevis, flexor digitorum accessorius.
- Sira Marma Vasthu : Dorsalis pedis artery, medial and lateral plantar arteries.
- Asthi Marma Vasthu : Talus, plantar surface of calcaneus
- Sandhimarma vasthu : Talocalcaneonavicular joint.

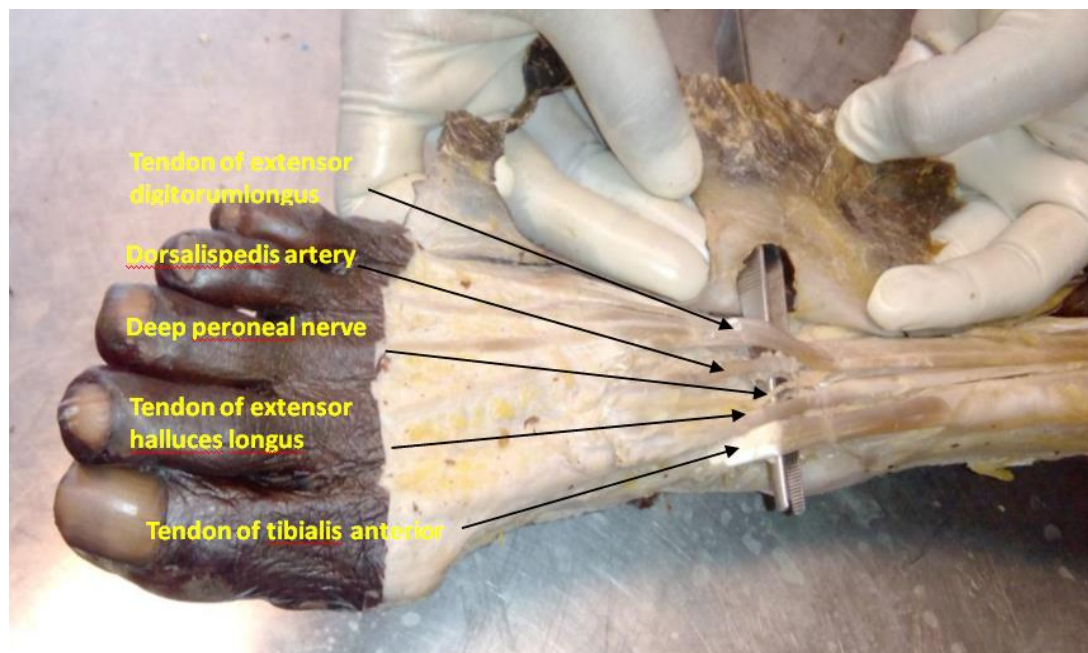


Fig 1: Structures found in Padagata Kurchashira Marma Pradesha

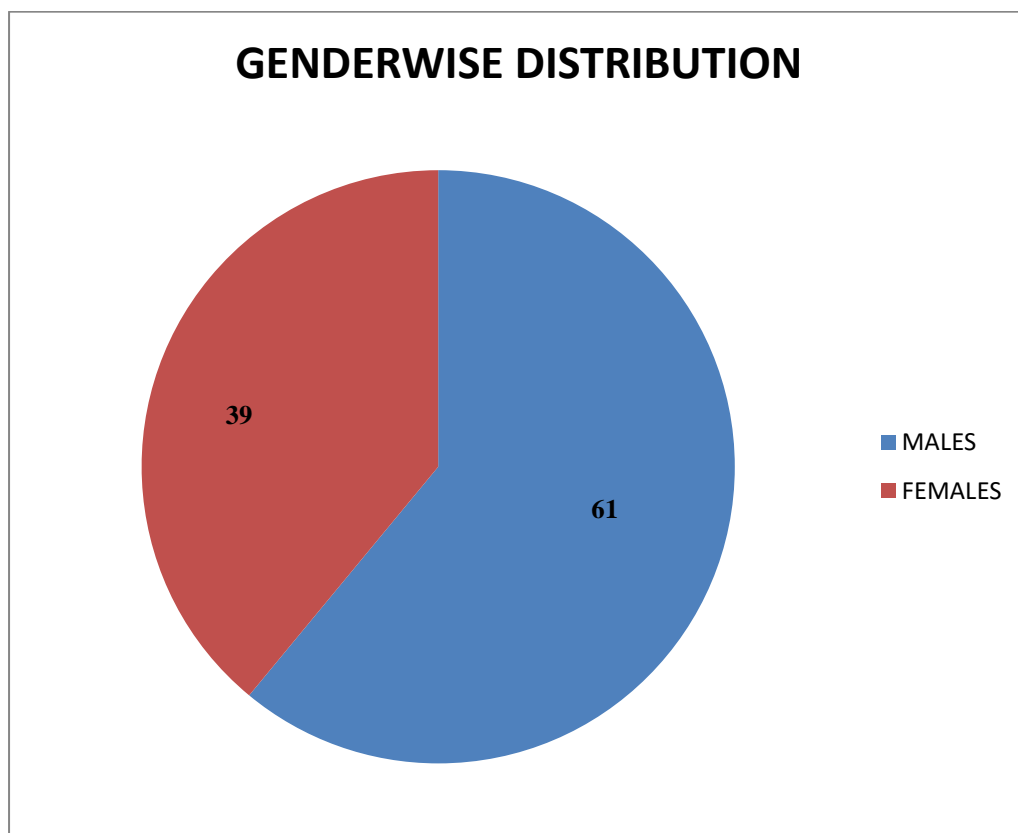
## OBSERVATION AND RESULT

Total number of patients 100 was considered for clinical study. Their demographical data related to Padagata Kurcha Shira marmabhiGadha both clinically and radiologically observed.

**Table No-1: Showing the distribution of Patients according to Gender.**

Gender	Number	Percentage
Male	61	61%
Female	39	39%

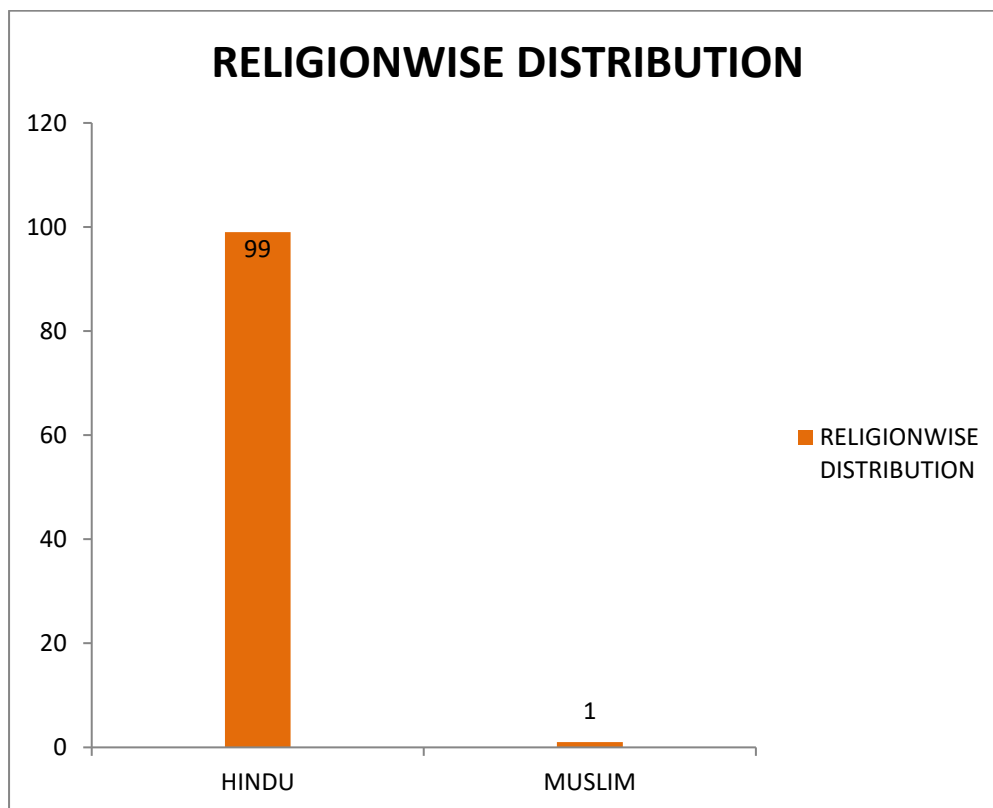
**Graph- 1: Showing the distribution of Patients according to Gender.**



**Table No -2: Showing the distribution of Patients according to Religion.**

Religion	Number	Percentage
Hindu	99	99%
Muslim	01	1%

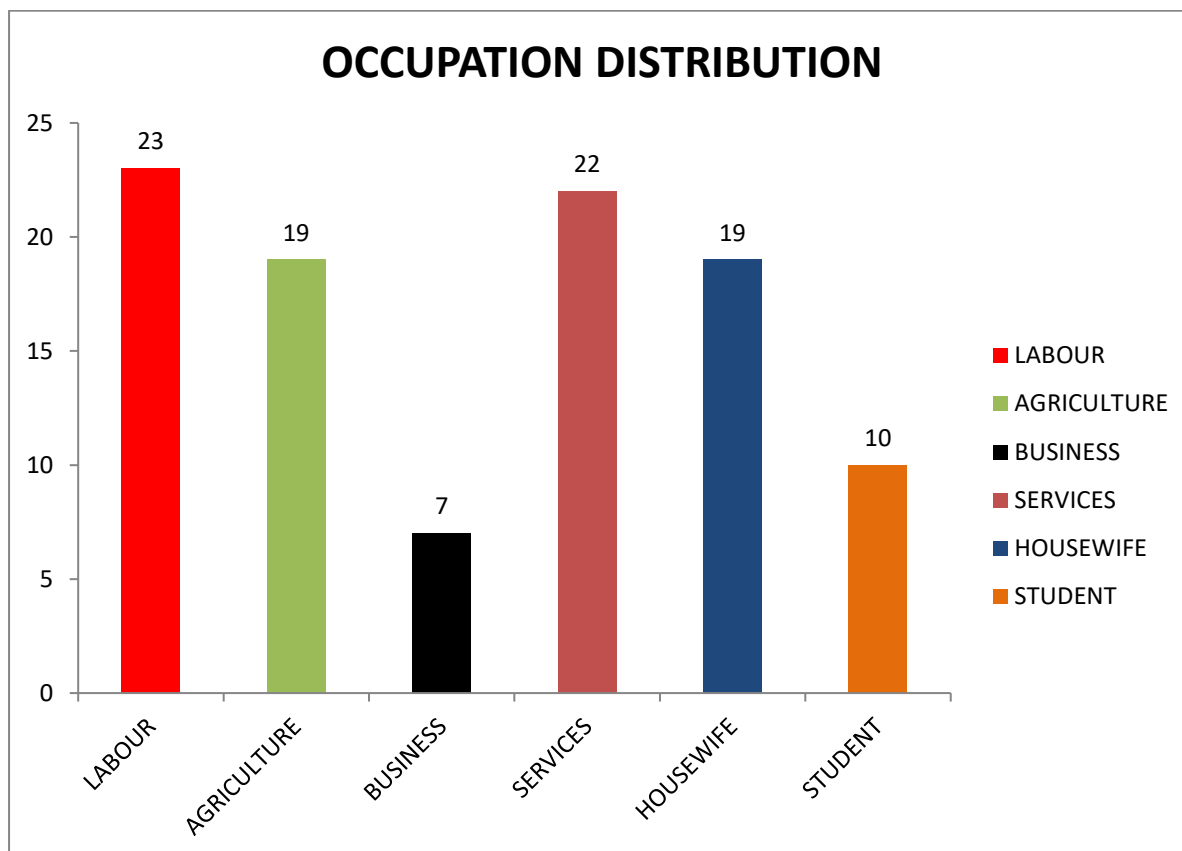
**Graph: 2 showing the distribution of Patients according to Religion.**



**Table No-3 : Showing the distribution of Patients according to occupation.**

Occupation	Number	Percentage
Labour	23	23%
Agriculture	19	19%
Business	7	7%
Services	22	22%
House Wife	19	19%
Student	10	10%

**Graph-3: Showing the distribution of Patients according to occupation.**

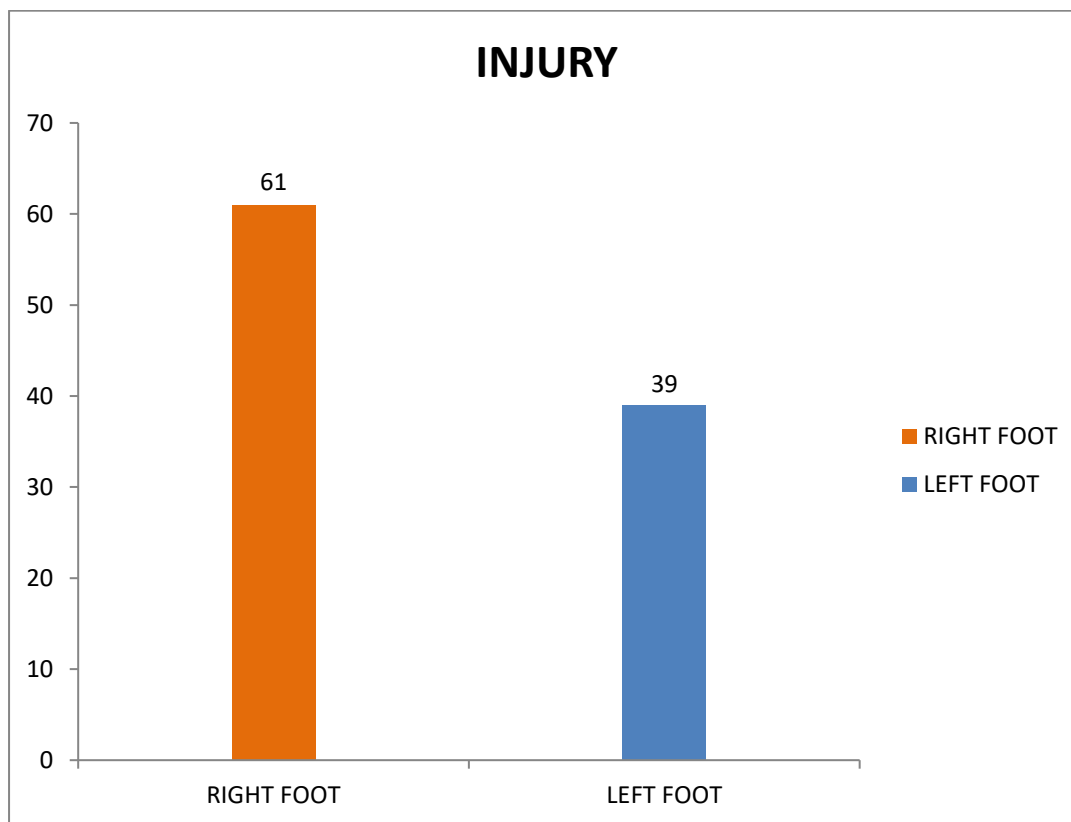


**Table No-4: Showing the distribution of Patients according to injury**

Injury	Number	Percentage
Right Foot	61	61%
Left Foot	39	39%



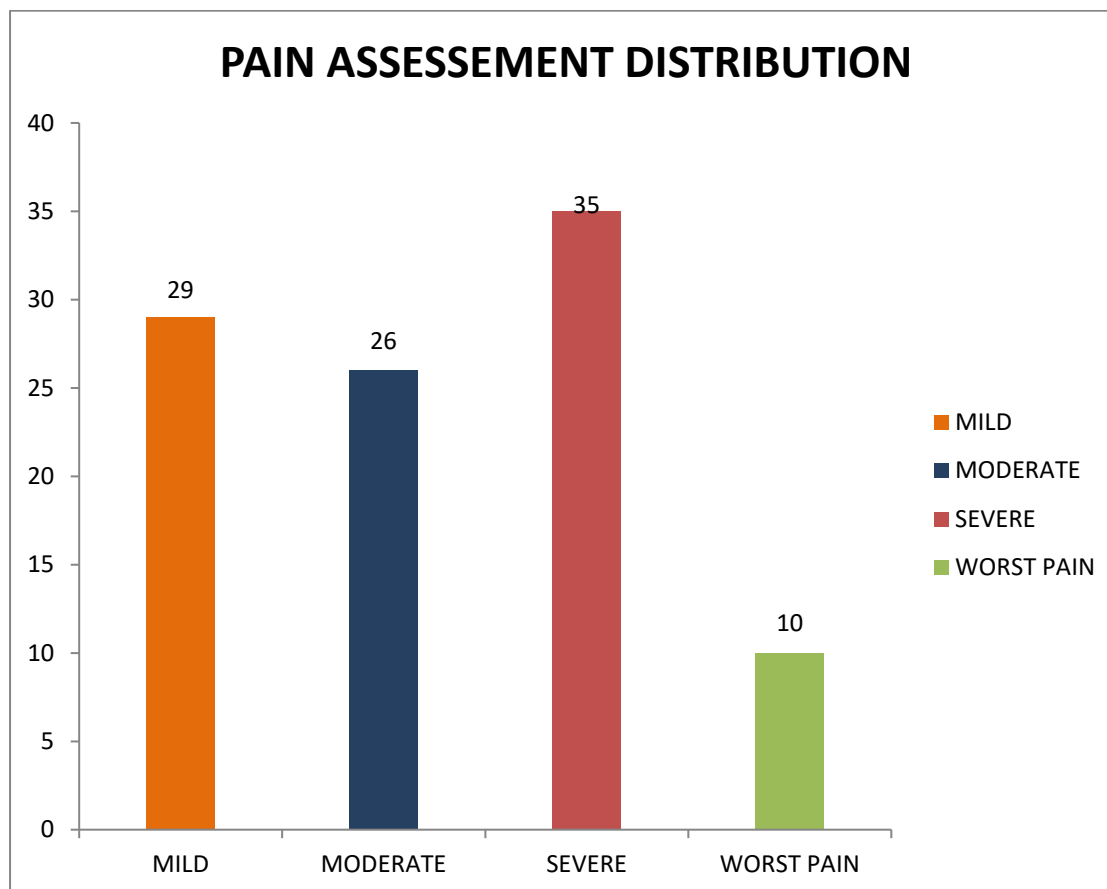
**Graph-4: Showing the distribution of Patients according to injury**



**Table No 5:- Showing the distribution of Patients according to pain assessment**

<b>Pain</b>	<b>Number</b>	<b>Percentage</b>
<b>Mild</b>	29	29%
<b>Moderate</b>	26	26%
<b>Severe</b>	35	35%
<b>Worst Pain</b>	10	10%

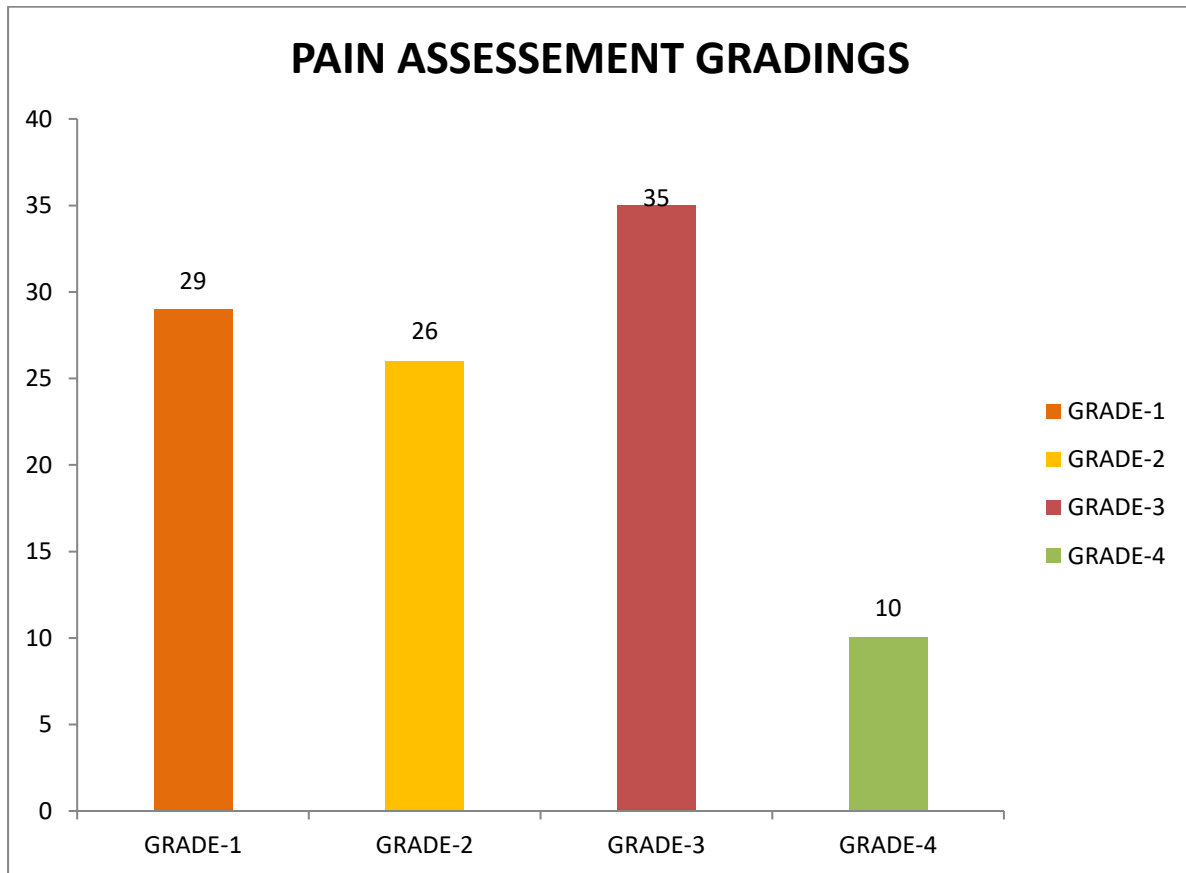
**Graph-5 : Showing the distribution of Patients according to pain assessment**



**Table No-6: Showing the distribution of Patients according to pain assessment grading**

Pain	Number	Percentage
Mild	29	29%
Moderate	26	26%
Severe	35	35%
Worst Pain	10	10%

**Graph 6: Showing the distribution of Patients according to pain assessment grading**



## CONCLUSION

Marmas are the vital points of our body, where the confluence of Mamsa, Sira, Snayu Asthi and Sandhi are seen. The lower part of the body or the lower limbs can be considered as the region of Adho Shakha. This includes the hip, the thigh, the leg, the foot and toes.

Snayus can be considered as all the fibrous tissues, the deep fascia and its modifications like aponeurosis, tendons, ligaments and retinacula. It can also be considered as nerves according to the symptoms exhibited in Snayu Gata Rogas.

Padagat Kuchashira, is grouped under Snayu Marmas. The dorsal and plantar aspects in front and below the ankle joint can be considered as Kurchashira Marma. The structures like tip of plantar aponeurosis, inferior extensor retinaculum, tendons of tibialis anterior, extensor hallucis longus, extensor digitorum longus, peronius tertius and deep peroneal nerve can be

considered as **Snayu Marma Vasthu** , **Mamsa Marma Vasthu**: flexor digitorum brevis, flexor digitorum accesorius, sira Marma Vasthu: dorsal pedis artery, medial and lateral plantar areteries, **Asthi Marma Vasthu**: talus, plantar surface of calcaneus, **Sandhi Marma Vasthu**: talo calcaneo navicular joint.

In this study pain is one of the main features of injury, it is classified under the category of rujakara marma and Predominantly Snayus are involved so it it is comes the under the heading of Snayugata marama.

On examining clinically and radiologically Ruja and Shopha present in all the patients due to involvement of Mamasa, Sira, Snayu, Ashti, Sandhi. Even though involved all Marma Vastus but the mainly Snayus are involved because o of this only Ruja is more in this condition.

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