RESULTS

This study was performed on 40 patients of different post-traumatic status we had 28 males and 12 females ranging age from 17 to 55 years with mean of 35 years old.

Most of the patients were complaining of different types of trauma , and some had recent and some had old trauma reaching upto months.

The following are the findings found in the examined cases and also the net results are seen:

The number of patients having osseous injuries are 23 patients representing 57.5 % of the patients .

Non osseous injuries are divided into tendinous, ligamentous and miscellaneous injuries.

The numbers of patients having ligamentous injures are 17 patients representing 42.5% of the cases.

The numbers of patients having tendinous injures are 24 patients representing 60 % of the cases.

The numbers of patients having miscellaneous injures are 31 patients representing 77.5 % of the cases.

The numbers of patients having Flexor hallucis longus and flexor digitorum longus injury are 15 patients representing 37.5% of the cases.

The numbers of patients having effusion are 24 patients representing 60 % of the patients

The number of patients having lateral ankle sprain 15 patients representing 37.5 % of the patients.

The number of patients having medial ankle sprain are 3 patients representing 7.5 % of the patients.

The number of patients having posterior tibial tendon injury are 4 patients representing 10 % of the patients.

The numbers of patients having Achilles tendon injuries are 7 patients representing 17.5 % of the patients

The numbers of patients having peroneal tendon injuries are 4 patients representing 10 % of the patients

The number of patients having peripheral nerve entrapment are 4 patients representing 10 % of the patients.

The number of patients having sinus tarsi syndrome are 2 patient representing 5 % of the patients.

The previous findings are shown in the table below:

Table 4: Percent of different types of ankle injuries.

Factor	*N*	*%*
Osseous injuries	23	57.5
Flexor hallucis & flexor digitorum	15	37.5
Effusion	24	60
Lateral ankle sprain & sinus tarsi syndrome	15	37.5
Medial sprain	3	7.5
Posterior tibial tendon	4	10
Achilles tendon	7	17.5
Peroneal tendon	4	10
Peripheral nerve entrapment	4	10
Sinus tarsi	2	5

I) osseous injuries are 23 patients further divided into 15 patients had bone contusion, 7 cases had acute fracture, and 5 cases had osteochondral fracture.

Bone Contusion	Acute Fracture	Osteochondral Fracture
11	7	5

Table 5: Osseous fractures.

Case	Fracture	Lateral collateral injury	Medial collateral injury	Tendon injury	Effusion	Subcutaneous edema
1	Calcaneus	+	-	+	-	-
2	Calcaneus	-	-	+	-	+
3	Tibia	-	+	-	-	-
4	Tibia	-	-	-	+	-
5	Tibia	+	-	+	+	-
6	Calcaneus	-	-	+	-	-
7	Tibia, fibula& talus	+	+	-	+	-

II) flexor hallucis longus and flexor digitorum longus were 15 cases all of them were tenosynovitis

III) Lateral ankle sprain and sinus tarsi syndrome are totally 16 patients, 15 cases lateral ankle sprain and 2 cases sinus tarsi syndrome.

Lateral Ankle Sprain	Sinus Tarsi Syndrome
15	2

Lateral collateral sprain are totally 15 patients, 8 cases are grade I and 7 cases are grade II.

Grade I	Grade II
8	7

Table 6: Grade I lateral collateral sprain.

Grade I Cases	Medial collateral injury	Tendon Injury	Fracture	Osteoch-ondral injury	effusion	Subcuta-neous edema
1	-	-	-	-	+	-
2	-	-	-	-	+	+
3	-	+	-	-	-	-
4	-	+	-	-	+	+
5	-	+	-	-	-	-
6	-	+	+	-	+	-
7	+	-	+	-	+	-
8	-	+	-	-	+	-

Table 7: Grade II lateral collateral sprain.

Grade II Cases	Medial collateral injury	Tendon Injury	Fracture	Osteoch-ondral injury	effusion	Subcuta-neous edema
1	-	+	+	-	-	-
2	-	+	-	+	+	-
3	-	-	-	-	+	-
4	-	-	-	-	+	-
5	-	+	-	-	-	-
6	-	+	-	-	+	-
7	-	-	-	-	+	+

IV) Medial collateral sprain are 3 cases.

Table 8: Medial collateral sprain.

Cases	Lateral collateral injury	Tendon Injury	Fracture	Osteoch-ondral injury	effusion	Subcuta-neous edema
1	-	-	+	-	-	-
2	-	+	-	-	-	+
3	+	-	+	-	+	-

V) Posterior tibial tendon injury are 4 patients,1 case type I partial tear, 3 cases are tenosynovitis..

Type I partial tear	Tenosynovitis
1	3

VI) Achilles Tendon injuries are 7 cases,3 cases are tendinosis,2 cases are partial tear and 2 cases are complete tear.

Tendinosis	Partial tear	Complete tear
3	2	2

Table 9: Achilles tendon injury.

Cases	Achilles tendon	ligaments injury	Tendon Injury	Osseous injury	effusion	Subcuta-neous edema
1	Tendinosis	-	-	+	-	-
2	Tendinosis	-	-	+	+	-
3	Tendinosis	-	-	+	+	-
4	Partial tear	+	-	+	+	-
5	Partial tear	-	-	-	-	-
6	Complete tear	-	+	-	-	-
7	Complete tear	-	-	-	+	-

VII) Peroneal tendon injuries were 4 cases, 2 of them were tenosynovitis and the other 2 were partial tear.

Tenosynovitis	Partial Tear
2	2

VIII) Peripheral nerve entrapment was 4 cases, 3 cases are tarsal tunnel syndrome and one case lateral plantar nerve compromise.

XI) Subcutaneous edema was 10 cases.

X) Miscellaneous injuries are 31 cases, 24cases are joint effusion, 10 cases are subcutaneous edema, 3 cases Haglund deformity, one case fibrous tarsal coalition and one case vascular malformation.

Table 10: Sensitivity of MRI pulse sequences in osseous injury.

	Osseous injury		
Cases	Bone contusion (15)	Fractures (7)	Osteochondral lesion (5)
T1	7	7	5
T2	8	7	5
FS	15	5	5

Table 11: Sensitivity of MRI pulse sequences in grade I lateral collateral sprain.

	Grade I lateral collateral sprain
Cases	8
T1	-
T2	4
FS	8

Table 12: Sensitivity of MRI pulse sequences in grade II lateral collateral sprain.

	Grade II lateral collateral sprain
Cases	7
T1	2
T2	4
FS	7

Table 13: Sensitivity of MRI pulse sequences in medial collateral sprain.

	Medial collateral sprain
Cases	3
T1	-
T2	1
FS	3

Table 14: Sensitivity of MRI pulse sequences in Achilles tendon injury.

	Achilles Tendon injury		
Cases	Tendinosis (3)	Partial tear (2)	Complete tear (2)
T1	3	1	3
T2	3	1	3
FS	3	2	3

Table 15: Sensitivity of MRI pulse sequences in Sinus Tarsi syndrome.

	Sinus tarsi
Cases	3
T1	1
T2	1
FS	3