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Original Research Paper

Rheumatology

DESCRIPTIVE STUDY ON DIFFUSE IDIOPATHIC SKELETAL HYPEROSTOSIS IN TYPE 2 DIABETES MELLITUS PATIENTS

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ABSTRACT

INTRODUCTION: Diabetes Mellitus is a common endocrine disease. Incidence is increasing in india. Chronic diabetes patients are having many rheumatological problems. Diffuse idiopathic skeletal hyperostosis is one of it[1].

AIM: To asscess , the prevalence of DISH in chronic diabetes patients, symptom analysis, clinical presentation and functional disability caused by Diffuse idiopathic skeletal hyperostosis(DISH) in long standing Type 2 Diabetes mellitus patients.

METHOD OF STUDY: Detailed history taking, clinical examination, basic blood investigation, blood sugar fasting & post prandial,HbA1c,and spinal xrays were done in all patients.

RESULTS: 2 patients had Diffuse idiopathic skeletal hyperostosis(DISH). 6 patients had Trigger finger. Carpal tunnel syndrome was in 5 patients. 2 patients had Deputeran contracture. Frozen shoulder was in 5 patients. 2 patient was suffering from Charcot arthropathy of ankle joints. Diabetic cheiro arthropathy was in 4 patients

CONCLUSION: If Type2 Diabetes mellitus patients have the complaint of chronic back pain ,annual spinal xrays imaging is helpful to detect early DISH. Spine X rays are the best screening tool to detect early DISH.

KEYWORDS : Diabetes mellitus,DISH, Bony spur

INTRODUCTION

Diabetes Mellitus is a common endocrine disease. Incidence is increasing in india. Chronic diabetes patients are having many rheumatological problems. Diffuse idiopathic skeletal hyperostosis is one of it[1]. The purpose of this descriptive study is to asscess , the prevalence of DISH in chronic diabetes patients, symptom analysis, clinical presentation and functional disability caused by Diffuse idiopathic skeletal hyperostosis(DISH) in long standing Type 2 Diabetes mellitus patients.

METHOD OF STUDY

Detailed history taking, clinical examination, basic blood investigation, blood sugar fasting & post prandial, HbA1c, and spinal xrays were done in all patients.

MATERIAL AND SELECTION

This study was conducted in the department of Rheumatology, KAPV Govt medical college ,Trichy,Tamilnadu from the period of February 2019 to Feb 2020.

100 patients of Type 2 Diabetes mellitus were studied.
The study was conducted after obtaining approval from Institutional Ethical Committee. The written consent was obtained from all patients who were participated in the study.

Sample size
100
Study design
Descriptive study
Inclusion criteria

100 patients of Type 2 Diabetes mellitus patients were included. Type 1 Diabetes mellitus patients were not included.

The sample size of 72% were male patients and 28% were female patients.
Disease duration;
5 to 15 years.
Age group;
40 to 75 years.
Statistical analysis

Stastistical analysis was performed by using SPSS software . Mean ,Mode and Median was measured for numerical values.

RESULTS

2 patients had Diffuse idiopathic skeletal hyperostosis(DISH).

The duration of Type 2 Diabetes mellitus in both patients was more than 10 years. Both were male patients. No female patients did not have Diffuse idiopathic skeletal hyperostosis(DISH) in this study.

6 patients had Trigger finger.

Carpal tunnel syndrome was in 5 patients. 2 patients had Deputeran contracture.

Frozen shoulder was in 5 patients. 2 patient was suffering from Charcot arthropathy of ankle joints.

Diabetic cheiro arthropathy was in 4 patients.
7 patients had Dequervein tenosynovitis.

Table 1. Dish and other Rheumatological manifestations in Type 2 Diabetes mellitus

S.NO	TYPE OF INVOLVEMENT	NUMBER OF PATIENTS
1	DISH	2
2	TRIGGER FINGER	6
3	CARPAL TUNNEL SYNDROME	5
4	DUPUYTREN CONTRACTURE	2
5	FROZEN SHOULDER	5
6	CHARCOT JOINT	2
7	DIABETIC CHEIRO ARTHROPATHY	4
8	DEQUERVAIN TENOSYNOVITIS	7

Table 2. Patients with DISH in Type 2 Diabetes mellitus.

DISH	INVOLVEMENT	MALE PATIENTS	FEMALE PATIENTS
	PRESENT	2	-
	ABSENT	70	28

DISCUSSION

The Rheumatological problems in Type2 Diabetes mellitus patients are Diffuse idiopathic skeletal hyperostosis

(DISH),Trigger finger, Carpal tunnel syndrome, Dupuyteran contracture, Frozen shoulder, Charcot arthropathy and Dequervain tenosynovitis.

The purpose of the study was to asscess the incidence, symptom analysis, clinical presentation and functional disability caused by Diffuse idiopathic skeletal hyperostosis(DISH).

Diffuse idiopathic skeletal hyperostosis(DISH) is a proliferative bone disease. The other names of DISH are ankylosing hyperostosis and Forestier disease[2].The bony spurs , ossification of ligaments and entheses involvement are the main feature of DISH[3].

In our study, among the study sample 2 patients had Diffuse idiopathic skeletal hyperostosis(DISH). Both patients had more than 10 years duration of Type2 Diabetes mellitus.

Both patients gave the complaints of back pain which duration was more than 2 years[4]. They had restriction of movement in cervical spine, thoracic spine ,and lumbar spine. They were treated by NSAIDS,and Physiotherapy[5].

The common site of involvement is throacic spine in DISH.

In our patients both cervical and throacic spine were involved[6].

Their whole spine x rays was revealed that flowing osteophyte in cervical spine and thoracic spine. This xray imaging is called flowing candle wax pattern[7]. Intervertebral joint space was maintained in spinal x rays. MRI sacroiliac joint was taken. It did not showed sacroilitis. DISH is one of the differential diagonosis of Ankylosing Spondylitis. DISH does not involve the sacroiliac joint[8].

Horseness of voice, sleep apnoea, myelopathy are associated with DISH. In our study no patients did not have these features.

DISH is associated with metobolic abnormalities like hyperinsulinaemia[9],hyperlipidaemia,hyperuricaemia and high coronary artery disease risk[10]. In our study one patient had myocardial infarction and he was undergone CABG.

CONCLUSION

DISH is a rare Rheumatological manifestation by Type2 Diabetes mellitus patients. It can cause restriction of spinal mobility. Early detection is helpful to prevent occupational disablity by restriction of spine movements.

If Type2 Diabetes mellitus patients have the complaint of chronic back pain ,annual spinal xrays imaging is helpful to detect early DISH. Spine X rays are the best screening tool to detect early DISH.

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