

Original Research Article

Etiological pattern of problems in an orthopaedics outpatient department of a tertiary care center

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ABSTRACT

Background: Outpatient orthopaedics department of a tertiary care hospital sees large number of patients. However, the funds and resources are limited and have to be judiciously distributed. This study aims to study the etiological pattern of different patients that present to the outpatient department (OPD).

Methods: Nine consecutive OPD's data was studied for the etiology of the different diagnosis of new patients presenting to the OPD. Etiology of various diagnoses was studied as a percentage of the total patients.

Results: Trauma of upper limb and lower limb formed a higher percentage of the total patients. Degenerative spine was more common than traumatic spine.

Conclusions: Traumatic conditions of the lower and upper limb make up majority of the cases. Degenerative spine is more common than the traumatic etiology.

Keywords: Orthopaedics OPD, Etiology, Tertiary care hospital

INTRODUCTION

Orthopaedics department of tertiary care government hospital in India typically cares for a large part of the urban population.¹ The OPD of the department handles on an average more than 200 patients daily since the OPD are heavily subsidized and in many cases it is free.^{1,2} However, this means that a typical outpatient department sees all types of complaints ranging from regular back pain to more serious infections and spine problems. Several patients regularly follow up with their complaints on regular intervals which increase the total patient load. Patients with diagnosis related to major bone injuries comprise a major part of the total patients seen in the OPD. Our purpose with this study was to report the various diagnosis that make up the OPD patient load in a tertiary care hospital. Our hospital is tertiary care center

which is funded by Municipal Corporation. Hence all the patients are seen free of charge. The medicines that are prescribed are also distributed free of charge by the pharmacy of the hospital. Tuberculosis of the bone and vitamin D deficiency also makes up a large percentage of cases.⁵ Hence, it is of vital importance to study the pattern of diseases presenting in the OPD to allocate funds for medicines, anti-tuberculosis drugs etc.^{3,4} This is of major benefit to the patients who otherwise cannot afford the private care facilities of the city.

Objective

The objective of the present study was to describe the etiological patterns of most common presenting problems in an Orthopaedics OPD of a busy tertiary care municipal hospital.

METHODS

This study was conducted in the outpatient Orthopaedics department (OPD) of Dr R.N. Cooper Municipal Hospital, Juhu, Mumbai. Data was collected for the patients presenting for the first time and seeking treatment in our OPD for all ages and diagnosis between January and March 2019 for 9 consecutive OPD days. The inclusion criterion was any new patient presenting with an orthopaedic disorder or an orthopaedic complaint. No ethical approval was required according to local laws. Patients with acute trauma and requiring emergency treatment were excluded. The numbers of patients in each broad diagnosis, etiology of trauma or infection were studied.

Statistics

Data was collected for 9 consecutive OPD's and analyzed as a percentage of the total number of patients. Mean and

standard deviation was calculated for all variables by entering them into excel spreadsheet.

RESULTS

Table 1 shows that total number of patients studied were 1275. There were 610 males and 579 females in the adult population with an average age of 55 (range 18-82 years). In the pediatric age group there were 46 males and 40 females with an average age of 9 years (range 2-16 years). Trauma related diagnosis was present in majority of the patients. Lower limb trauma comprised 42% of the diagnosis and upper limb trauma was 22%. Average number of lower limb trauma and upper limb trauma was 60 and 31 respectively. Pediatric trauma (n=6) was more common than either infection (n=3) or congenital problems (n=2). Spine related problems were mostly related to degenerative conditions (20%). Spinal trauma was 4% of the total diagnosis. Pediatric trauma was 4% of the total patients (Figure 1).

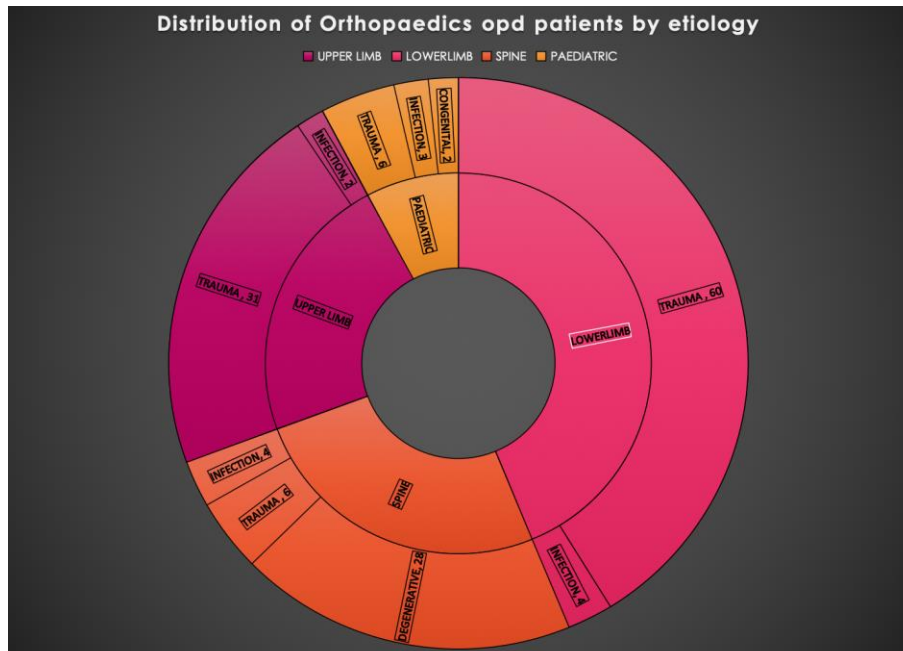


Figure 1: Distribution of patients by etiology.

Table 1: Distribution of the diseases in 9 consecutive OPD days.

Region	Etiology	n	n	n	n	n	n	n	n	n	Mean	S.D.
Upper limb	Trauma	20	30	26	27	43	39	31	27	36	31	7
	Infection	3	4		1	2	3		1		2	1
Lower limb	Trauma	48	55	58	43	80	64	80	42	71	60	15
	Infection	7	5	5	2	4	2		1		4	2
Spine	Degenerative	20	35	32	24	25	25	37	24	26	28	6
	Trauma	8	7	3	6	4	6	9	5	6	6	2
	Infection	6	6	2	3	2	6		2		4	2
Paediatric	Trauma	3	6	7	4	15	7	2	5	6	6	4
	Infection	1	1						2	5	3	2
	Congenital	3	1	2	1	1	1	8			2	3

n: number of patients; S.D.: standard deviation.

DISCUSSION

Our study was done to identify the different etiology of the problems that present to the OPD of a tertiary care hospital. Since the resources of a municipal hospital are limited, knowledge of the different problems for which the patients seek treatment is useful.

Lower limb trauma associated problems formed a significant part of the OPD patient load. Since lower limb problems are more disabling, the patients tend to seek treatment on priority. Tuberculosis infection related problems are also a major part of our OPD diagnosis. Spinal tuberculosis patients seek treatment with some delay after presenting symptoms. Hence the problem is always advanced to a greater degree by the time they present to our OPD. Few follow up patients present with newer problem related to the tuberculosis infection of the spine. However, the anti-tuberculosis drugs are distributed by the chest and TB department. In order to have a better coordination in prescribing drugs to the follow up patients, we feel a common multidisciplinary OPD for such patients will improve the quality of care.

Two other studies agree with our results.^{6,7} In the study by Ren-Hao et al, trauma was seen in the age group 18-30 years with male gender more common.⁷ Low back pain and spondylosis were the predominant problems in the study by Kumar et al.² Osteoarthritis was the second most common problem in their OPD.

If the ratio of degenerative problems to infection related problems can be studied, the medicines can be allocated accordingly. Antibiotics and NSAID are thus the most common medicines to be arranged since trauma, degeneration and infection was the etiology in most of the patients. A pattern of the presenting problems needs to be accurately studied for resource allocation.

Several tertiary care hospitals in India are aided by the government and municipal corporation. Since the services are free, they cater to a heavy patient load. An accurate pattern of the diseases can be studied, and provisions made for the resources. Patients with low back

ache with an etiology of degenerative disease tend to seek follow up treatment on a regular basis. NSAID's tend to be prescribed for few weeks in case of patients presenting with pain due to degenerative and acute problems. Since there has been a drive towards more generic medicines, more NSAID's of generic nature should be in store.

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Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

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