

CHARACTERISTICS OF FRACTURE PATIENTS AT TGK CHIK DI TIRO REGIONAL GENERAL HOSPITAL 2023

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ABSTRAK

Insiden kasus ortopedi & traumatologi semakin meningkat di seluruh dunia. Hal ini disebabkan oleh jumlah penduduk dunia yang terus meningkat setiap tahunnya. Kasus trauma merupakan yang tertinggi pada bagian keilmuan ortopedi & traumatologi. Setiap tahun 5 juta pasien meninggal karena trauma. Tujuan penelitian ini adalah untuk mengetahui karakteristik pasien yang mengalami patah tulang di RSUD Tgk Chik Di Tiro pada tahun 2023.

Kata Kunci: Ciri-ciri, Fraktur RSUD Tgk Chik Di Tiro

ABSTRACT

The incidence of orthopedic & traumatology cases are increasing throughout the world. Those are caused by the world population increasing every year. Trauma cases are the highest in the orthopedics & traumatology scientific section. Every year 5 million patients die due to trauma. The aim of this research is to determine the characteristics of patients who experience fractures at Tgk Chik Di Tiro Regional Hospital in 2023.

Keywords: Characteristics, Fracture, Tgk Chik Di Tiro Regional Hospital.

INTRODUCTON

Orthopedics is a branch of medical science that studies bones, joints, tendons, and all the matters that cause an extremity to move.(1) Orthopedic science has transformed into an important science for prevention, diagnosis and management of musculoskeletal cases in every age group.(2) Trauma is the third cause of death in all age groups after cardiovascular disease and cancer.(3) In 2020 the death rate caused by trauma reached 8.4 million cases.(4)

Data at one hospital in England shows that there were 2817 orthopedic case visits with case division in one year; 1511 lower limb fractures, 126 vertebral disc disease, 55 vertebral fractures, 108 cellulitis without involving bones and 124 secondary infections.(5) Research at the Orthopedic Hospital, Prof. Dr. R. Soeharso Surakarta in 2016 found that the number of patient visits was 1,024 patients in the first quarter of 2016. From this data it is known that the distribution of patient characteristics is highest at the age of 21-45 years 49%, then the distribution of characteristics based on gender shows men with 52 % and post orifical calcaneus medical diagnosis was the highest medical diagnosis at 31%.(6)

Based on 2018 National Riskesdas data, musculoskeletal trauma cases are the highest orthopedic cases, with a percentage reaching 9.2% of the total cases of hospital visits in Indonesia. The most frequently encountered type of musculoskeletal trauma is fracture, lower limb fractures being the most frequently encountered case with a percentage of 67.9%, of the total cases 9.2% of sufferers experienced permanent scars and 0.6% of sufferers lost part of their limbs. The age prevalence of patients who experience injuries is most often aged 15-24 years with a total of 12.2% of the total orthopedic patients. Men are the most common sufferers compared to women with a ratio of 11;7.4, this is in accordance with the habit of men being more active than women (7)

Based on the 2018 Aceh Riskesdas, injury cases are the highest among all cases in the Orthopedics section.(8) Nationally, the prevalence of trauma cases in Aceh Province always increases every year, from initially 5% in 2007 to 5.5% in 2013 and increasing to 6% in 2018.(7) Cases dislocation was the highest case with 47.2% of the total cases, fractures occurred in 7.8% of the total injury cases. With the highest patient age criteria in the age range 15-24 years, followed by age 25-34 years. Men suffer more often than women with a ratio of 2:1 (1)

Patient characteristics vary in each community because the incidence of a disease depends on activities in that area.(9) Injuries resulting from traffic accidents are the main cause of disability and mortality in developing countries.(10) Men suffer the most from musculoskeletal trauma, this can be caused by the type activities carried out by men.(7)

Due to the increase in Orthopedic cases throughout the world in recent years, this research aims to identify Orthopedic cases in Tgk Chik Di Tiro Regional Hospital, Pidie during the period January to December 2023. This research was carried out by looking at data on patient characteristics and diagnoses who come for treatment at the polyclinic or who are hospitalized at Tgk Chik Di Tiro Regional Hospital, Pidie.

METODOLOGI

This research is a type of quantitative descriptive research with a cross-sectional approach which was carried out at Tgk Chik Di Tiro Regional Hospital from 5 December 2023 to 5 January 2024. It was used a total sampling technique from secondary data, namely medical records that met the inclusion criteria. The variables observed in the form of patient profiles include: age, gender and diagnosis. Data analysis was carried out using SPSS.

RESULTS AND DISCUSSION

DISCUSSION

Based on Table 1, it is known that humerus fracture is the most frequent cases at Tgk Chik DI Tiro Regional Hospital throughout 2023 with a total of 129 cases encountered. Olecranon fracture is the fracture with the lowest percentage of occurrence during 2023 with only 9 cases. This is in accordance with research at the Prof. Orthopedic Hospital. DR. R. Soeharso Surakarta in the March 2017 period, it was found that Humerus Fracture patients were the most common cases.(11)

In Table 2 it is known that men experience fractures more often than women, the number of fracture patients are 390 men or 61.7% while women are 242 people or 38.3%. This is in accordance with research in Bali in 2013 which stated that the overall incidence of fractures was 11.3 in 1,000 per year, in men 11.67 in 1,000 per year, while in women it was 10.65 cases in 1,000 per year.(12)

Based on Table 3, the age distribution of fracture patients showed that those aged 45-64 have the highest number of fracture cases with 176 people or 27.08% and the lowest are those aged <1 year with 1 person or 0.5%. These results are in accordance with research conducted in Sweden which stated that the average age of patients who experienced a fracture was 57.9 years.(13)

RESULTS

From January to December 2023, there were 3,747 patients who came for treatment to the Orthopedics section of Tgk Chik Di Tiro Regional Hospital, an average of 10-11 patients per day. Based on the inclusion criteria for this study, there were 632 patients registered as patients in the Orthopedics & Traumatology department who experienced fracture cases. (Table 1) Based on data on the types of cases experienced, it is known that Humerus Fractures are the most common fracture cases with a total of 129

cases or 20.5% of the total fracture cases and Olecranon Fractures are the least common fracture cases with a total of 9 cases or 1.4% of the total case. (Table 2) Gender data found that more men experienced fractures than women, namely 390 cases or 61.7% of men compared to 242 cases or 38.3% experienced by women. The percentage of men experiencing the highest type of fracture is Cruris Fracture with 80.0%, while the highest percentage of fractures in women is Femur Fracture with 51.5%. (Table 3) Distribution of the age distribution of patients who experienced fractures, it was found that age 45-64 was the highest age to experience fracture cases with a total of 176 cases or 27.8%, while age <1 year was the age that experienced the least fractures with only 1 case or 0.5%. of the total cases.

Table 1. Types of Fracture Cases

Cases	Total	Percentage
Humerus Fracture	129	20.5
Radius Fracture	71	11.2
Tibia Fracture	52	8.2
Metacarpal Fracture	45	7.2
Cruris Fracture	45	7.2
Ulna Fracture	41	6.5
Wrist Joint Fracture	41	6.5
Fibula Fracture	41	6.5
Metatarsal Fracture	38	6.0
Femur Fracture	35	5.5
Clavicle Fracture	19	3.0
Ankle Joint Fracture	18	2.8
Calcaneus Fracture	18	2.8
Patellar Fracture	15	2.3
Elbow Joint Fracture	15	2.3
Olecranon Fracture	9	1.4
Total	632	100

Table 2. Gender of Fracture Patients

Cases	Men	%	Women	%
Humerus Fracture	75	58.1	54	41.9
Radius Fracture	42	59.1	29	40.9
Tibia Fracture	34	65.3	18	34.7
Metacarpal Fracture	28	62.2	17	37.8
Cruris Fracture	36	80.0	9	20.0
Ulna Fracture	23	58.5	17	41.5
Wrist Joint Fracture	25	60.9	16	39.1
Fibula Fracture	25	60.9	16	39.1
Metatarsal Fracture	24	63.1	14	36.9
Femur Fracture	17	48.5	18	51.5
Clavicle Fracture	12	63.1	7	36.9
Ankle Joint Fracture	12	66.6	6	33.4
Calcaneus Fracture	11	61.1	7	38.9
Patellar Fracture	10	66.6	5	33.4
Elbow Joint Fracture	9	60.0	6	40.0
Olecranon Fracture	6	66.6	3	33.4
Total	390	61.7	242	38.3

Table 3. Number of Patient Fractures Based on Age

Age	Total	%
< 1 Year	1	0.5
1-4 Years	8	1.2
5-14 Years	59	9.3
15-24 Years	118	18.6
25-44 Years	166	26.2
45-64 Years	176	27.8
>65 Years	104	16.4
Total	632	100

CONCLUSION

In this study, there were 3,747 patients who came for treatment to the orthopedic department during 2023. The number of patients who met the criteria for this study was 632. Based on patient characteristics, it was found that men experienced orthopedic cases more often than women and the highest age for experiencing orthopedic cases was 45-64 years, the lowest age to experience orthopedic cases is < 1 year. Based on the most common diagnosis, Humerus Fracture was found to be the most frequent case with a total of 129 cases and Olecranon Fracture occurred the least with a total of 9 cases throughout 2023. Humerus fracture is the most frequently found fracture, men experience Humerus Fractures more often than women. Ages 25-44 most often experience Humerus Fractures.

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