Radiology

DEMOGRAPHY OF MYCETOMA IN SUDAN

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ABSTRACT Demography is science of population ,lead to understand population dynamic it included many parts {1}, this research focused in age and gender of patients that affected by Mycetoma in Sudan. Mycetoma diagnosed either clinically or by histopathological finding but definitive diagnose require positive tissue culture {2}. The study deal with demographic manifestation of mycetoma patient in Sudan

Introduction:

Mycetoma is a chronic granulomatous disease of the subcutaneous and deep tissues which lead to progressive destruction of tissue leads to loss of function of the affected site. {3, 4}. This disease is primarily affects the poorer populations and rural regions of Africa, Latin America, and Asia at latitudes defined as the "mycetoma belt" where higher mycetoma frequencies are observed, occur mostly in regions with higher humidity {5}.Sudan seems to be the homeland of mycetoma. The disease is known in the Sudan, before the advent of modern medicine, by its present common name of "Nebit" {6}.When the mycetoma is caused by a fungus, the swelling is called a euomycetoma, and when caused by bacteria it is called an actinomycetoma {7, 8}.

Materials and methods:

This hospital-based cross-sectional descriptive study was conduct at the Mycetoma Research Centre, Khartoum Sudan during the period September 2019 up to march 2022. The study included 150 patients diagnosed and refer to MRI department to perform Magnetic Resonance Imaging. The patient refer to three MRI diagnostic center

I ANTALIA DIGNOSTIC CENTER (The magnet from General Electric Company type is close, the magnet made of super-conductive material, the magnetic field strength created by the magnet is 1.5 Tesla).

II Dar AL-ELAJ HOSPITAL (The magnet from Philips Company type is closed, the magnet made of superconductive material, the magnetic field strength created by the magnet is 1.5 Tesla).

III FADIAL HOSPITAL (The magnet is from Siemens Company type is closed, the magnet made of superconductive material the magnetic field strength created by the magnet is1.5 tesla).

And the data were collected by direct interview after that the data were managed by statistical package for social science programme (SPSS version 26).

Results:

The conduct search identify 150 patients their age divided in the range of ten years although the relation between the disease repetition and the range of years demonstrated in table 1

Table (1) shows Frequency distribution of disease related with age group.

age group	Frequency	Percent%
10-20 years	27	18.0
21-31 years	63	42.0
32-42years	36	24.0
54-64 years	24	16.0
Total	150	100.0

The figure (1) below demonstrated the percentage and frequency of relation of age group with repetition of disease
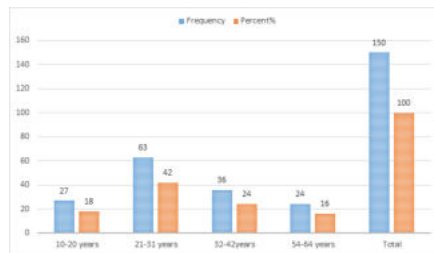

Figure (1) Frequency distribution of disease related with age group

The relation between gender and repeating of disease is demonstrated in table 2

Table (2) Frequency distribution of gender

gender	Frequency	Percent
Male	133	88.7
Female	17	11.3
Total	150	100.0

To better understand this relation between age gender and appearance it demonstrate in chart form as shown in figure (2)
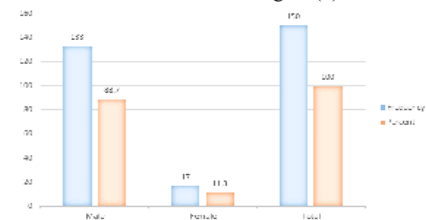

Figure (2) Frequency distribution of disease and its relation with gender.

Discussion:

This scoping review that the issue as shown in table 1 and figure 1 shows age distribution of the patients ranged from 10-62 years the highest frequency of age was 63 patients (42%) in age group (21-31) years, while the lowest one was 24 patients (16%) in group (54-64) years. Which is near to WHO (world health organization) receded that published in January2022 records which mentioned the prominent affect age between 15-30 years. {9}And agree with result of study of Alexendro Bonfifaz puplished paper in 2014 {10} that mention the prominence disease with age range (20-40 years).Also it similar to result of study of Doudo Sow puplished paper {11} that mention the highest repetition percentage disease with age range (15-45 years).

As shown in table 2 and figure 2 we noticed that the percentage of repetition between both genders, that the frequency of male higher

than female. Male gender was 133 with percentage (88.7%) and female gender 17 (11.3%).with ratio of 1: 7.8 this ratio is higher than mentioned by (Fahal et. al 2018) which mention the ratio 1: 3.7. and also higher than the ratio of study of Alexondro Bonifaz {10}which describes the ratio as1:3.

Conclusion:

The study found that the most noticeable age of affect by disease is youth age (21-30 years) Which work much as farmer and shepherd.The disease is most affect male because of social conception about gender and the man more out home worker otherwise the most of females work were in side home.

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