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Effectiveness of Methotrexate in Treating Granulomatous Mastitis with Sustained Outcome – A Case Series – UAE – Tawam Hospital – Al Ain

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Abstract Title: Effectiveness of Methotrexate in Treating Granulomatous Mastitis with Sustained Outcome – A Case Series – UAE – Tawam Hospital – Al Ain

Introduction:

Idiopathic granulomatous mastitis (IGM) is a chronic benign inflammatory breast disease which has been prevalent throughout literature since 1972. Its clinical presentation and progression of disease mimics that of breast adenocarcinoma. The main management was surgical extraction plus/minus the use of high doses of oral steroids with few reports about Methotrexate use as adjuvant therapy. In This Case Series, four cases of IGM are reported of which have failed management through surgery and use of high dose steroids and respond well to oral Methotrexate with sustained cure.

Case 1-37-year-old Emirati lady married with three children – all breast fed; presented to the breast clinic Tawam Center in April 2020 with painful breast lumps at 3:12 o'clock for more than two weeks. A prolonged antibiotic course failed to achieve resolution.

Case 2-42-year-old Emirati lady with six children all breast fed, presented in March 2020 with painful breast lumps at 1-4 o'clock. Antibiotics for six weeks failed to contain the lesions.

Case 3-42-year-old Palestinian lady with three children - all breast fed; presented to the breast clinic in Oct 2020 with a painful breast lump at 5 o'clock which progressed to abscess formation. Although the patient was managed through incision & drainage as well as a prolonged course of antibiotics for two weeks, the lesions did not only persist, but they observed growth in size.

Case 4-33-year-old female Emirati lady with a history of diabetics' mellitus for several years , married with two children - all received normal lactation , presented to the Breast center in January 2020 complaining of a breast lump at 12 o'clock. Patient received antibiotic course for 4 weeks with no remarkable results.

All four cases were investigated thoroughly through blood and Radiological films. There was no clinical evidence of underlining sepsis , bacterial or fungal infections. Immunological screens were negative. All mammograms were negative for malignancy features. Ultrasound scans revealed multifocal lesions with chronicity appearance and no signs of malignancy. The BI-RADS score ranged from grade II in three cases to grade III in one case. Breast biopsies revealed the characteristics histopathological features of chronic

granulomas associated with multinucleated giant cells. A Diagnosis of idiopathic granulomatous mastitis was made.

Method(s):

A case series - Four cases

Result(s):

All cases received a high dose of oral prednisolone ranging from 25 mg to 30 mg for 6-8 weeks , but unfortunately no lesions regression had occurred ,instead, some cases showed progression of lesions in number and sizes. Methotrexate was introduced in a dose of 15 mg Po weekly. In 4-6 weeks, prednisolone was successfully tapered and stopped. Lesions continue to regress in size and achieved complete resolution in max 9 months. Cases were followed for a year and no recurrence occurred.

Conclusion(s): The use of oral Methotrexate in dose of 15 mg weekly demonstrates a significantly promising effect not only in treating IGM but showing a sustained effect for a full year after treatment .This should be taken in consideration when managing future cases of IGM .