

## PLASMA CELL GRANULOMA STOMACH IN AN ADULT MAN: A CASE REPORT AND REVIEW OF THE LITERATURE

Dr. Nabeel Nazeer\*<sup>1</sup>, Dr. P. K. Baskaran<sup>2</sup> and Dr. P radaraju<sup>3</sup>

<sup>1</sup>Postgraduate, Sree Balaji Medical College and Hospital; Bharath University; Chennai 44.

<sup>2,3</sup>Professor Sree Balaji Medical College and Hospital; Bharath University; Chennai 44.

\*Corresponding Author: Dr. Nabeel Nazeer

Postgraduate, Sree Balaji Medical College and Hospital; Bharath University; Chennai 44.

Article Received on 18/02/2018

Article Revised on 11/03/2018

Article Accepted on 01/04/2018

### ABSTRACT

Plasma cell granuloma, also known as inflammatory myofibroblastic tumour or inflammatory pseudotumour, is a nonneoplastic process characterized by an unregulated growth of inflammatory cells. It most commonly occurs in the lung and upper respiratory tract but it has been recognized that any anatomic localization can be involved. Plasma cell granuloma in adults are very rare, especially in the stomach. There is very little data on the aetiology, pathogenesis and the most effective treatment for this disorder; therefore, the prognosis of the condition is difficult to predict. The most common treatment for these lesions is complete excision although this is not always possible. Radiotherapy and steroid therapy have been suggested, with a few isolated successes; however, further data is needed before these therapies can be safely advocated as an alternative to excision. We present a case of a 52-year old man with plasma cell granuloma in the stomach and a review of the literature.

**KEYWORDS:** Myofibroblastic tumour or inflammatory pseudotumour, nonneoplastic.

### CASE PRESENTATION

A 52 year old male presented to General surgery outpatient department of sree Balaji medical college and hospital on 24<sup>th</sup> November 2015 with complaints of abdominal pain for the past 1 week which was insidious in onset and gradually increased for the past 3 days generalised type of pain, which was non radiating. No aggravating or relieving factors. Pain was associated with vomiting for the past 3 days, soon after intake of both solid and liquid food items. Non projectile vomitus, containing only food particles, no bile or blood stained, non-foul smelling Previous history of mumps present when the patient was 15 years old. No history of difficulty or pain while swallowing, heart burn or chest pain. There was no history of any trauma or fever and history of burning micturition or malena. Patient is an alcoholic for the past 5 years with a frequency of weekly once – quarter Regular bowel and bladder habits. Patient is not a diabetic, hypertensive, asthmatic or any cardiac diseases.

#### On Examination

General condition was fair, afebrile and oriented.

Cardiovascular, respiratory system and central nervous system was normal.

P/A - SOFT, BS+, pain present in the epigastric and right lumbar region, no obvious organomegaly, no distension, no tenderness or guarding, hernia orifice are free.

Patient was haemodynamically stable.

#### Investigations

The routine laboratory studies, including hematology, urology, and blood chemistry, along with liver function tests, were all within normal limits. The erythrocyte sedimentation rate was 36 mm/hr. Moreover, no abnormal urine protein was detected.

Ultrasound abdomen showed wall thickening involving the antrum of the stomach with narrowing of the lumen giving a target sign appearance.

Medical gastroenterology opinion was obtained in view of upper gastrointestinal problem. The medical gastroenterologist performed the UGI scopy which was able to enter into the duodenum and revealed a congested mucosa and poor distensibility in the antrum; suggestive of congestive gastropathy; following which a biopsy was taken and sent for histopathological analysis.

Histopathological examination revealed a lesion measuring 0.5cc showed fragments of superficial mucosa with erosion, congestion and edema of the lamina propria. Sheets of plasma cells are seen in the

lamina propria admixed with few lymphocytes and occasional eosinophils with no evidence of dysplasia – suggestive of plasma cell granuloma.

Anti-HCV (spot) was also sent which came back negative.

Patient was asked to come to and review as an op basis regularly. Review USG was done on 27/01/2016 which showed no evidence of wall thickening of the stomach.

### Treatment

Patient was treated conservatively with antacids and proton pump inhibitors. Patient felt symptomatically better and was advised to review in op every month for regular check-up.

### DISCUSSION

Plasma cell granuloma (PCG) is a highly, uncommon, reactive tumor-like lesion with an uncertain etiology.<sup>[1]</sup> WHO has PCG as an intermediate (rarely metastasizing) fibroblastic/myofibroblastic tumors composed of myofibroblastic spindle cells admixed with inflammatory infiltrate of plasma cells, lymphocytes, and eosinophils.<sup>[2]</sup> It is formed by aggregates of mature plasma cells intermixed with mesenchymal cells like fibroblast and histiocyte-type and arranged in a granulomatous pattern.<sup>[3]</sup> They are differentiated B lymphocytes which are found in the red pulp of the spleen, medulla of the lymph nodes, tonsils, lamina propria of the entire gastrointestinal tract, mucosa of the nose and upper airway, and sites of inflammation.<sup>[3-5]</sup> Plasma cell granuloma is a diagnosis of exclusion, distinguished primarily on the histological finding of a marked submucosal plasma cell infiltrate. We report this case in the view of its rarity and unknown etiology.<sup>[5]</sup>

### Consent

Written informed consent was obtained from the patient for publication of this Case report.

### CONCLUSION

Because of the rarity of the lesions and lack of chronological observations, the hypothesis that plasma cell granuloma is merely one of the representative aspects of the granulomatous stage of the process occurring in the plasmacytoma does not appear to have sufficient evidence so we are reporting this rare case. Furthermore, the granulomatous tissue of the present case is not considered to have any suggestion of neoplastic process.

The etiologic agents of the plasma cell granulomas are not obvious. It is entirely mysterious as to whether or not the presence of the plasma cells is a mere representation of inflammatory reaction as seen in the inflammation of the breast or thyroid glands. In our case, no clear-cut evidence on the possible etiologic agents causing

specific granulomas, such as luetic, fungal, parasitic, or other venereal agents, was found. Moreover, whether or not the plasmacytic proliferation represented the immunologic reaction in any way could not be detected. While occasional reports of gastric plasmacytoma are found in the literature, there appears to be no reported case of the gastric lesions of the type presented in this discussion.

### REFERENCES

1. Anila Namboodripad PC, Jaganath M, Sunitha B, Sumathi A. Plasma cell granuloma in the oral cavity. *Oral Surg*, 2008; 1: 206-12.
2. Fletcher CD, Unni KK, Mertens F, editors. *World Health Organization Classification of Tumours. Pathology and Genetics of Tumours of Soft Tissue and Bone*. Lyon: IARC Press, 2002.
3. J. Soares, J.F. Moura Nunes and J. Sacadura Plasma cell granuloma of the tongue. *Report of a case Histol Histopath*, 1987; 2: 199-201.
4. Neha Bansal, Soheyl Sheikh, Richa Bansal, Robin Sabharwal, Manish Kumar, Ankit Goel, Plasma Cell Granuloma of Gingiva -A Rare Case Report, *International Journal of Scientific Study*, 2013; 01(03)
5. Manveen Kaur Jawanda, Ravi Narula, Ashutosh Nirola, Shruti Gupta, Priya Gupta Oral plasma cell granuloma: A case report of an ambiguous lesion, *Journal of the International Clinical Dental Research Organization*, 2014; 6(1).