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"Prevalence of Pyogenic Granuloma among Dental Patients in Northern India: An Original Research"

Dr. SharibAbdus Salam[1],Dr.Hanjala Safi Rayeen[2], Dr. Mobeen Khan[3], Dr. Nazish Akhtar[4], Dr. Nimrah Kawoos[5].

1. Senior lecturer, Department of Periodontics and Implantology, Government Patna Dental College and Hospital, Patna.
2. Senior lecturer, Department of Oral Pathology and Microbiology, ChandraDentalCollegeandHospital,SafedabadBarabanki.

3. Senior lecturer, D*epartment of* OralM*edicine and* Rad*iology,* C*handra*Dent*al*Col*lege* and Hospital, Sa*fedabadBarabanki*.
4. Seniorlecturer,DepartmentofOralMedicineandRadiology,Seema Dental College and Hospital Rishikesh, Uttarakhand.
5. MDS, Pedodontics, Private Practitioner Florence Hospital Chanpora, Srinagar, Kashmir.

Corresponding author: Dr. SharibAbdus Salam; Senior lecturer, Department of Periodontics and Implantology, Government Patna Dental College and Hospital, Patna.

BACKGROUND:*Pyogenic granuloma is a very common, non‐ neoplastic reactive growth of the oral cavity. Conservative surgical excision is the main line of treatment. Other treatment modalitie is cryosurgery, or lasersurgery. Scar formation and recurrence are the main post treatment complications.*
MATERIALS AND METHODS:*500 patients were included in this study in which 325 patients weremale and 175 patients were female.Patients with 18 to 65 years of age were included in this study. Patients with severe reduced mouth opening were excluded from the study. Collected data was analyzed by using software SPSS 16.*
RESULTS:*Out of 325 male patients, 36 (11.08%) patients were diagnosed with pyogenic granuloma and out of 175 female patients, 22 (12.57%) patients were diagnosed with pyogenic granuloma.*
CONCLUSION:*Pyogenic granuloma is more common in female than male.*
KEYWORDS:*Pyogenic Granuloma; Cryosurgery.*

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I. Introduction

Pyogenicgranulomaorgranulomapyogenicumisacommontumor‐ likegrowthoftheoralcavityorskinconsid eredtobe non‐ neoplasticin nature[1].The accurate etiology and pathogenesis of pyogenic granuloma(PG) is still not obvious although, many researchers mentioned that pyogenic granuloma occurred due to an intensive reaction of localized connective tissue to a little irritating factor[2]. Many etiological factors for pyogenic granuloma have been reported for instance, primary teeth exfoliation, eruption of adult teeth ,traumatic factors, hormonal change , gingival inflammation ,chronic irritant factor, medications, vascular lesions, defective restoration, food accumulation or strange object and calculus in the gingiva and poor oral hygiene status[3].Later, in 1904, Hartzell termed it as granuloma pyogenicum. It is the most common nonneoplastic tumor-like growth of the oral cavity. PG is a reactive tumor which arises in response to various stimuli due to local irritation and traumatic activity of tumor cells and on the rate of cell death. Prevalence of PG is more common in females in the second decade of life, probably due to vascularization effect of estrogen and progesterone[4]. Although PG does not show infiltrative tendency or malignant transformation potential, the recurrence rate after simple excision is comparatively high about 15.8% and requires a re-excision of the lesion in the near future[5].Diagnosis of pyogenic granuloma (PG) depends on clinical, Histopathological and Radiographical examinations. "peripheral giant cell granuloma", "hyperplastic gingival inflammation", "Kaposi's sarcoma" "peripheral odontogenic fibroma", "peripheral ossifying fibroma", "angiosarcoma" and "hemangioma" should be consider in differential diagnosis of pyogenic granuloma[6]. Pyogenic granuloma is a common benign vascular tumour occurring in all ages. Both skin and mucous membranes can be affected. The tumour consists of capillary proliferations, venules and fibromyxoidstroma. The development of a lesion occurs in three stages and bleeding is a common symptom. The tumour can mimic various other vascular lesions, solid tumours, and soft tissue infections. In recent years, targeted tumour therapies have become the most common cause of drug-induced

pyogenic granulomas. The backbone of treatment is surgical procedures including laser therapy. New developments in medical drug therapy include topical and systemic beta-adrenergic receptor antagoniststimolol and propranolol. Drug therapy is an alternative for young children, ocular and periungual pyogenic granuloma[7].

II. Aim And Objectives

To study the prevalence of Pyogenic Granuloma among Dental Patients in Northern India

III. Materials

- Instruments used:

1. Plane mouth mirrors and probe.
2. Tongue depressor.
3. Cotton swab
4. Kidney trays.
5. Cotton holders.
6. 2x2 inch gauze pieces.
7. Disposable gloves.
8. Towel.
9. Metallic scale.
10. Big steel tray.

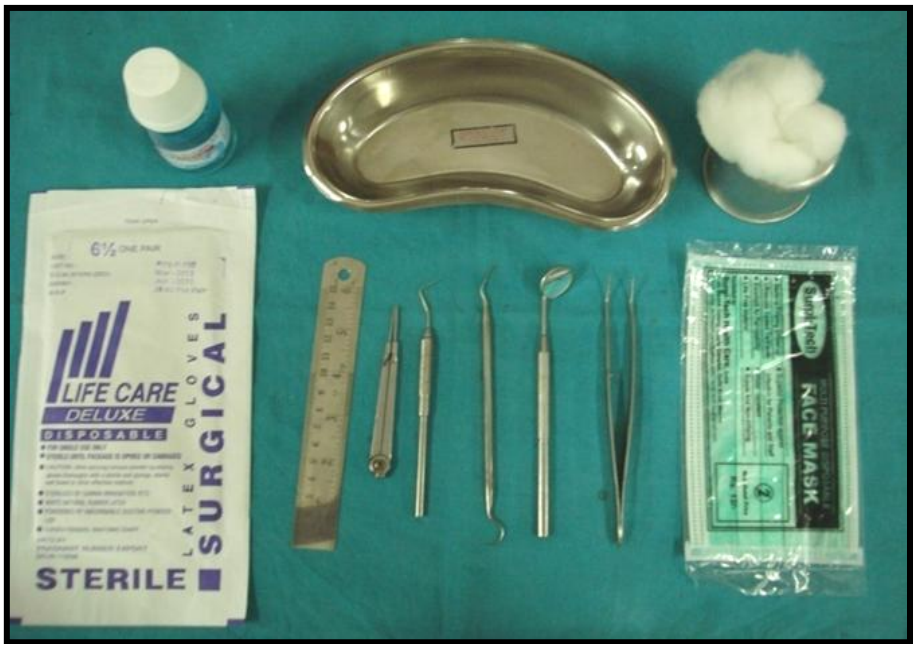
- Additional:

1. Torch
2. Clip board.
3. Indible pencils.

IV. Methodology

500 patients were included in this study in which 325 patients weremale and 175 patients were female.Informed consent was obtained from the patients selected for the study. Patients with 18 to 65 years of age were included in this study. Patients with severe reduced mouth opening were excluded from the study. Patients with severe systemic disorders (bleeding disorders, cardiac disorders etc.) were not included in this study. Patients with other oral disorders were not included. Patients with oral malignancies were excluded from the study. Examination of the oral cavity was performed under good illumination using gloves, probe, mirror and other equipment. Diagnosis is made on the basis of clinical examination and history of the disorders.

STATISTICAL ANALYSIS: The data was compiled using Microsoft excel sheet (Windows 2010) and Collected data was analyzed by using software SPSS 16. All results were compared using percentage.



Photograph No:-1. Photograph Showing Armamentarium Used For Clinical Examination

V. Results

TABLE NO. 1. GENDER WISE DISTRIBUTION OF THE PATIENTS

Male	325
Female	175
Total	500

Out of 500 patients, 325 patients were male and 175 patients were female.

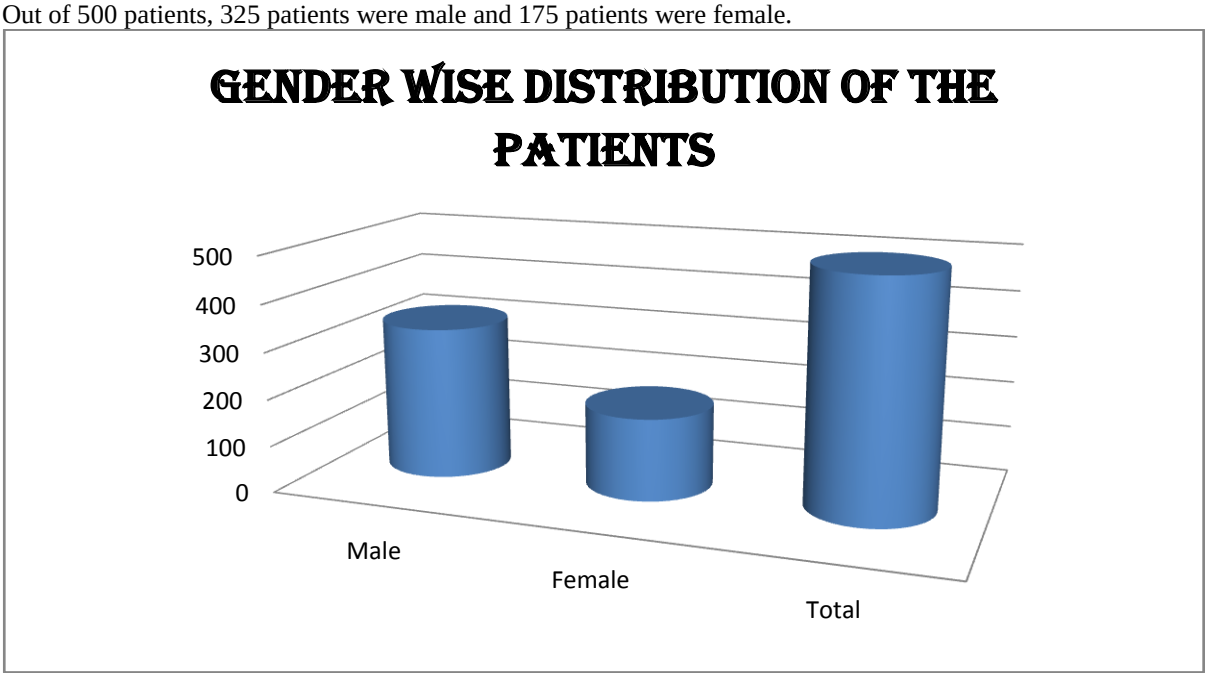
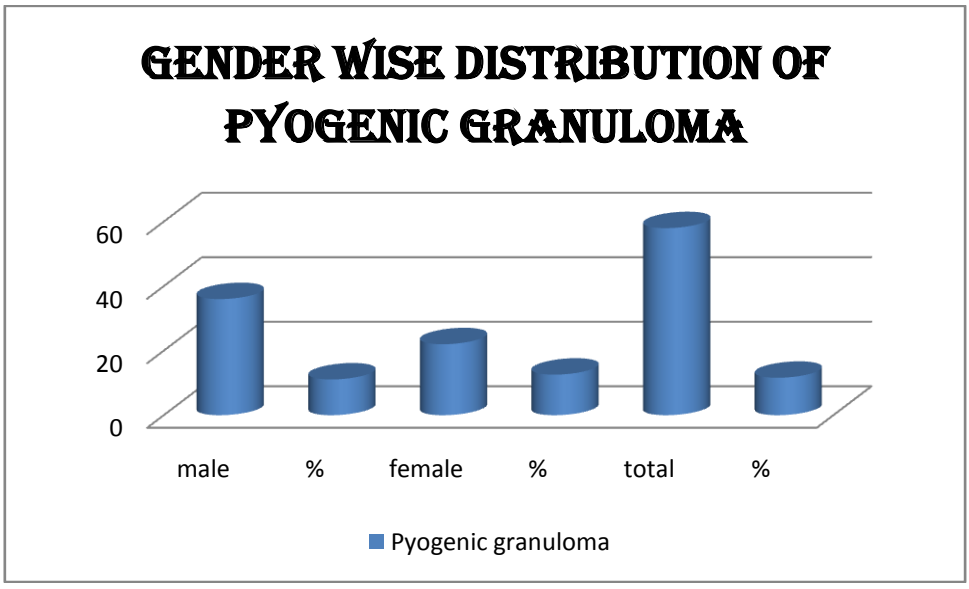


Table no. 2. Gender wise distribution of pyogenic granuloma

	male	%	female	%	Total	%
Pyogenic granuloma	36	11.08	22	12.57	58	11.6

Out of 325 male patients, 36 (11.08%) patients were diagnosed with pyogenic granuloma and out of 175 female patients, 22 (12.57%) patients were diagnosed with pyogenic granuloma. Out of 500 patients 58 (11.6%) were diagnosed as pyogenic granuloma. Females shows higher prevalence than males.



VI. Discussion

In this study out of 325 male patients, 36 (11.08%) patients were diagnosed with pyogenic granuloma and out of 175 female patients, 22 (12.57%) patients were diagnosed with pyogenic granuloma. Out of 500 patients 58 (11.6%) were diagnosed as pyogenic granuloma. Females show higher prevalence than males. This study is in line with the study conducted by Alwanet al[8].

VII. Conclusion

Pyogenic granuloma is more common in female than male. Early diagnosis helps in the betterment in the quality of life with early treatment. Further study is required for better and accurate results with larger sample size. Recurrence rate is very high in the case of pyogenic granuloma.

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FIGURE:- CLINICAL PHOTOGRAPH OF PYOGENIC GRANULOMA

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