

# HISTOPATHOLOGICAL SPECTRUM OF PAROTID TUMOURS IN PATIENTS FROM DR GEORGE MUKHARI ACADEMIC HOSPITAL: A SIX YEAR REVIEW

BTZ SHONGWE, M KOTU, M KHABA

Department of Otorhinolaryngology, Sefako Makgatho Health Sciences University

## BACKGROUND

Tumours of the salivary glands are relatively rare but morphologically diverse. Due to their diversity, they may present considerable diagnostic and management challenges to the pathologist or surgeon. The parotid gland, accounting for about 64 to 80%, is the commonest site for salivary gland tumours. The epidemiology and histopathology of parotid gland tumours is said to be influenced by geographical factors. Histopathology is the most important diagnostic tool and guides management. We identified only one study in South Africa that reported on the histopathology of parotid tumours. Despite the high number of patients seen with parotid gland tumours, no study has been done at our institution to look at their histopathology.

## AIM

Histopathological study of parotid gland lesions is the most important method in establishing the final diagnosis and accordingly guides in the specific management. The aim of the study was to determine the histopathological spectrum of parotid gland tumours at Dr George Mukhari Academic Hospital.

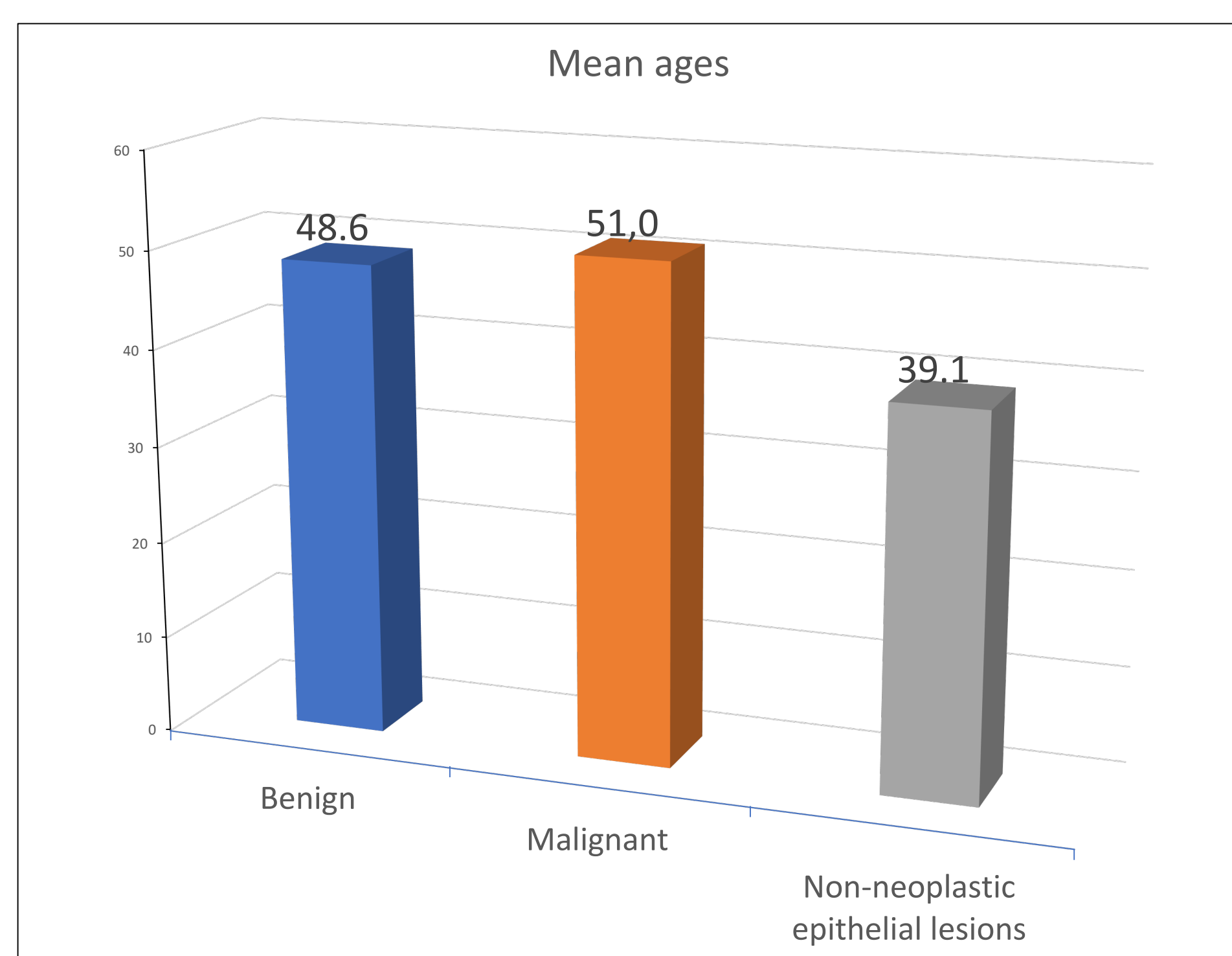
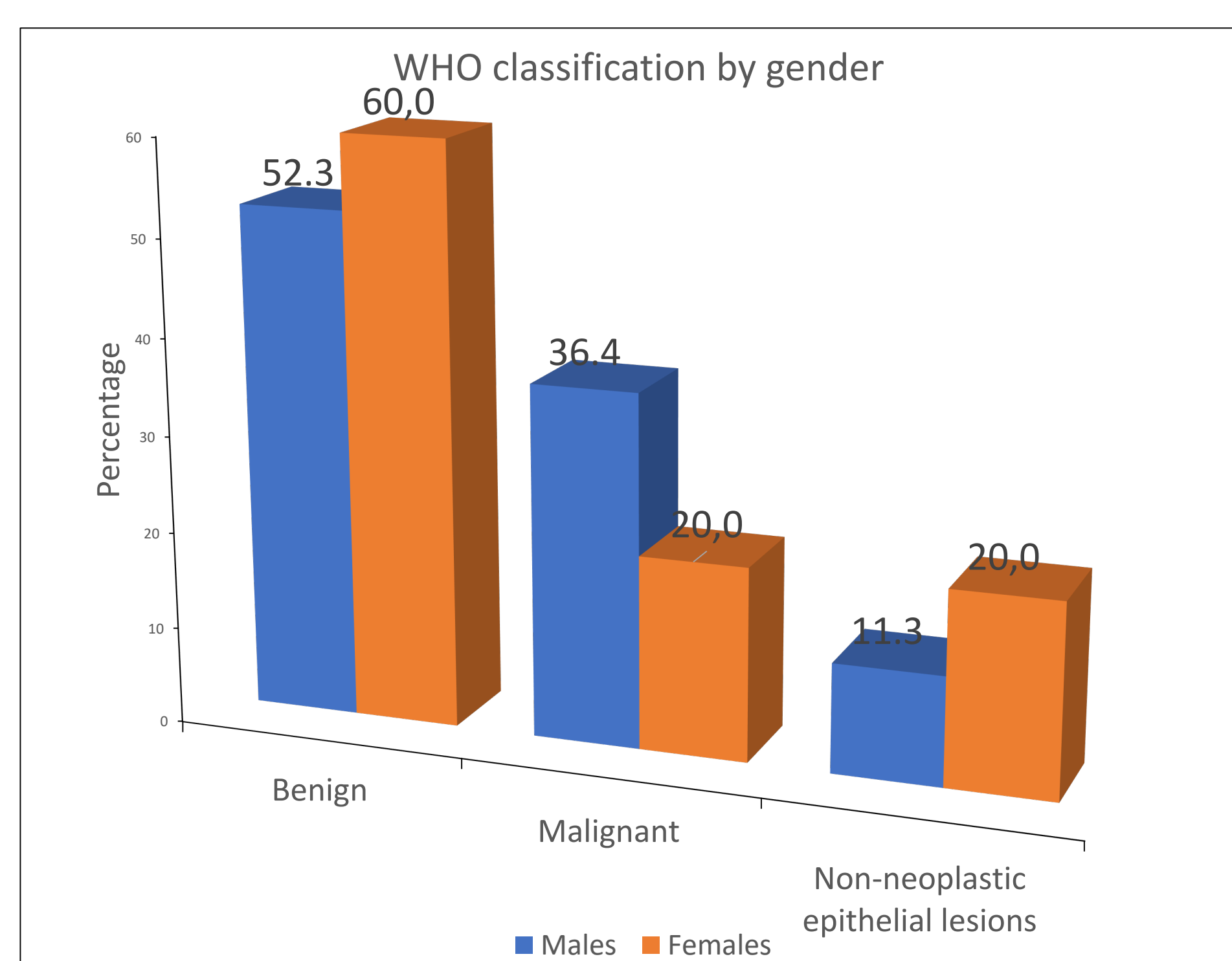
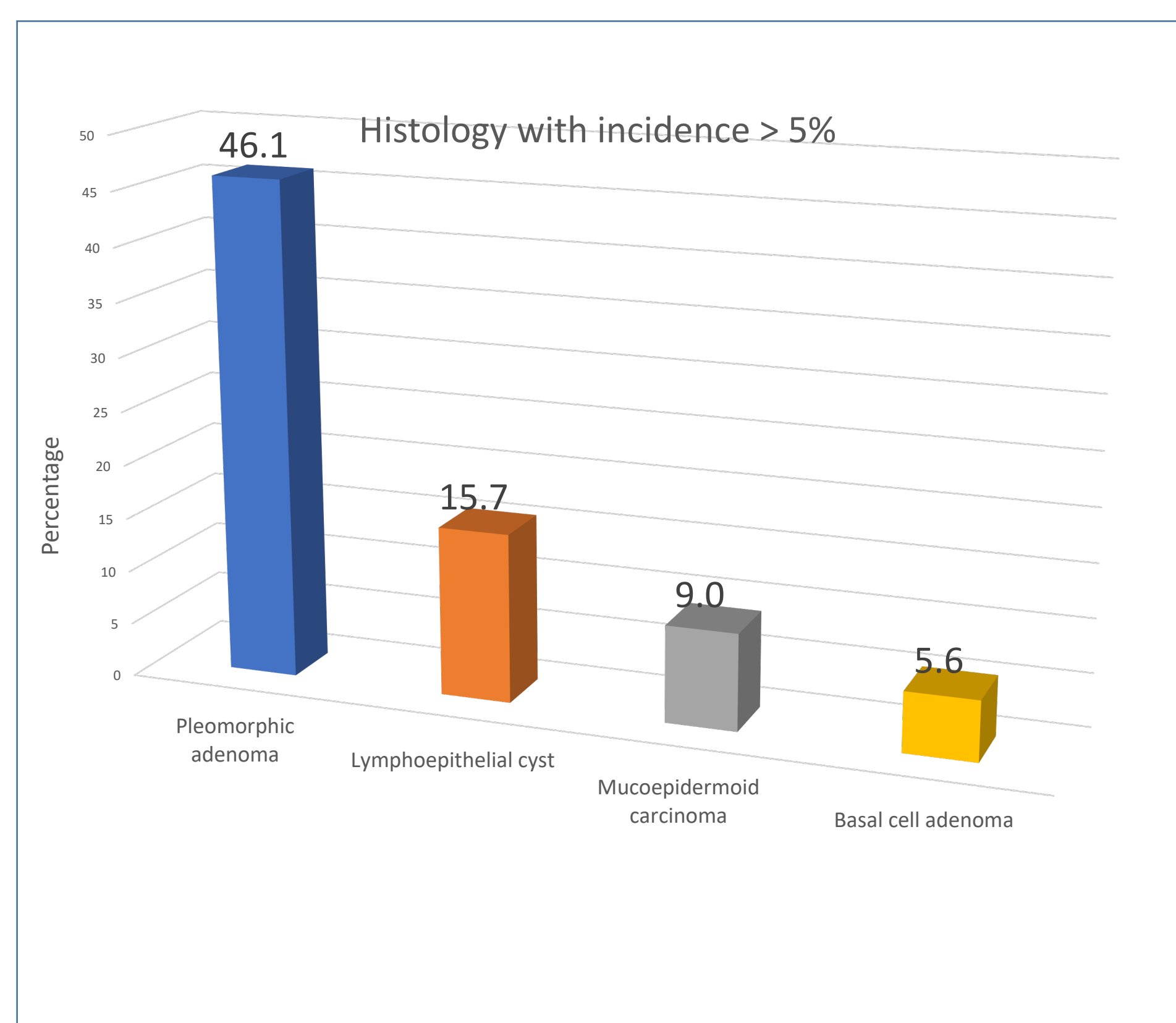
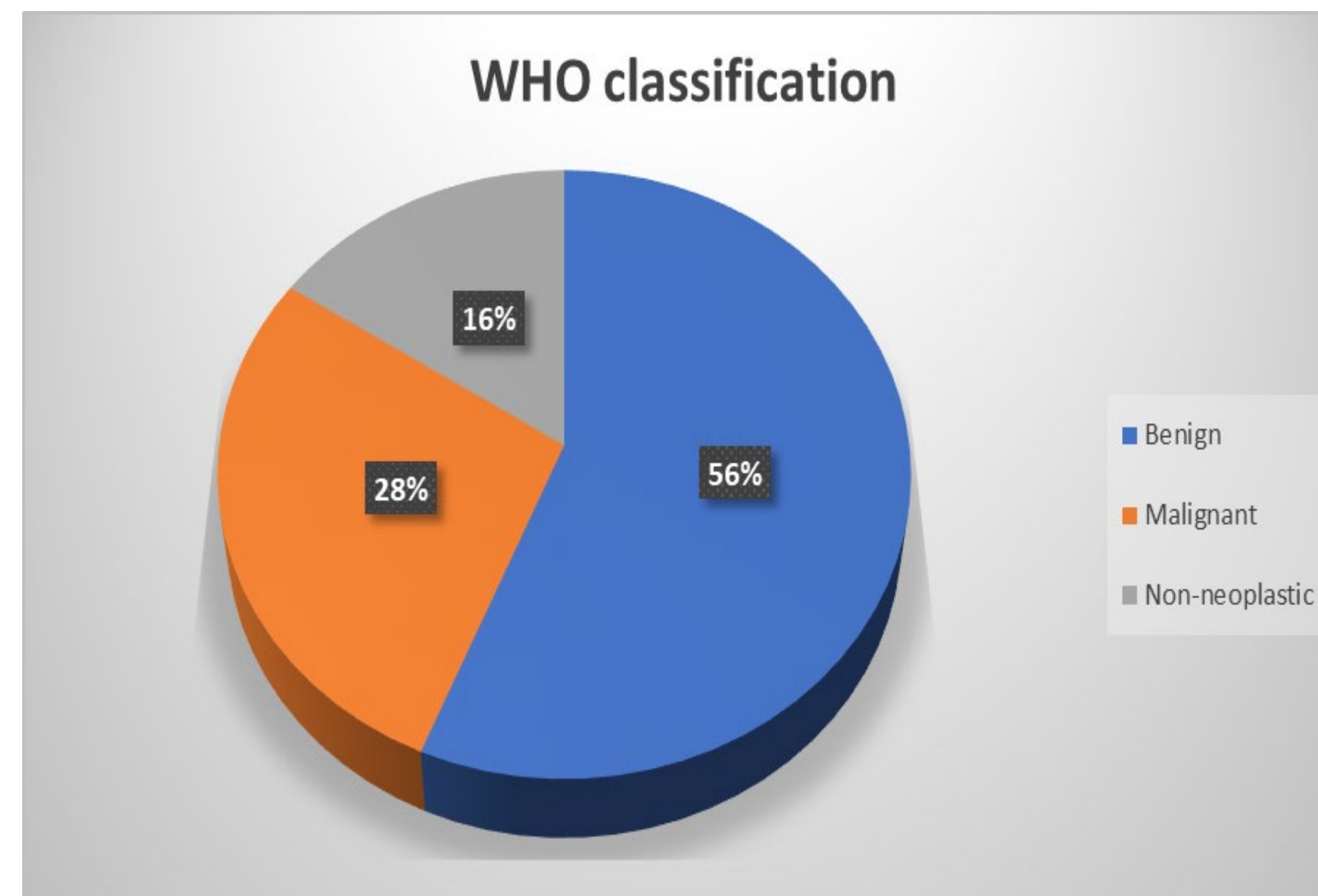
The primary objective was to report on the histopathology of parotid gland disease for which parotidectomy was done, and the spectrum thereof, at our local facility. Other objectives were to determine the age distribution of parotid gland tumours and to determine the gender predilection of parotid gland tumours.

## MATERIALS AND METHODS

This was a retrospective case series conducted at Dr George Mukhari Academic Hospital. Included in the study were patients who presented and were histologically diagnosed within the facility as having parotid tumour, between January 2014 and December 2019, inclusive. Data was collected from patient files and histopathology reports.

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## RESULTS

A total of 118 patients had been seen and treated for salivary gland lesions. Of these, 98 were from the parotid gland. Eighty-nine tumours were identified, including 50 benign lesions, 25 malignant lesions, and 14 non-neoplastic epithelial lesions. Nine parotid gland lesions were excluded.

The incidence of benign tumours was 56.2%, compared to 28.1% of malignant tumours, and 15.7% of non-neoplastic epithelial lesions. Overall, the tumours were equally distributed among males and females (49.4 and 50.6% respectively). Benign tumours and non-neoplastic epithelial lesions were more common in females (60% vs 52.3% and 20% vs 11.3%), and malignant tumours were more common among men (36.4% vs 20%) overall. The overall mean age at diagnosis was 47.8 years, 48.6 years for benign lesions, and 51.0 years for malignant lesions. Pleomorphic adenoma was the commonest salivary gland tumour (46% overall, 82% benign), with mucoepidermoid carcinoma being the commonest malignant tumour (32% malignant). Contrary to studies from the West, Warthin tumour was rare (1% overall, 2% benign).

## DISCUSSION

Dr George Mukhari Academic Hospital serves a community in the Northern part of Pretoria, the majority of whom are from poor socio-economic backgrounds. It has been iterated that the incidence of salivary gland tumours is influenced by geographical and racial factors. Local data is useful for analysing the distribution and features of salivary gland tumours in a population. It was therefore imperative to assess the histopathology of these tumours in a local context.

Our findings were in keeping with international studies with respect to Pleomorphic adenoma and Mucoepidermoid carcinoma as the commonest benign and malignant tumours, respectively. However, peculiar to our context (including other African studies), Warthin tumour was rare. Basal cell adenoma was the second most common benign tumour. Acinic cell carcinoma and metastatic SCC were the second most common malignant tumours. The high incidence of metastatic (esp, cutaneous) SCC has been reported in Australia, as well as in South Africa, but these findings were not echoed in studies from the rest of the African continent.

## CONCLUSION

The incidence of salivary gland tumours is influenced by geographical and racial factors. Warthin tumour was rare in our context. Metastatic SCC accounted for 16% malignant tumours.