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OriginalResearch

A study to evaluate the incidence of the maxillectomy defects among different age groups, gender, side involved, and etiology

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***ABSTRACT*:**
Background: Maxillectomy is a surgical procedure that involves the removal of part or all of the maxilla bone, and can result in various defects. The incidence of these defects may vary depending on age, gender, side involved, and etiology. **Aim and objectives:**The purpose of this retrospective study was to evaluate the incidence of maxillectomy defects among different age groups, gender, side involved, and etiology in patients who underwent maxillectomy. **Results:**A total of 300 patients were included in the study, and the results showed that the incidence of maxillectomy defects was highest in patients over 70 years old, and in males. The right side was involved more frequently than the left side, but the difference was not statistically significant. **Conclusions:**The most common etiology for maxillectomy was cancer. These findings have important implications for the management and rehabilitation of patients who undergo maxillectomy.
Keywords: maxillectomy, defects, age, gender, side involved, etiology

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INTRODUCTION

Maxillectomy is a surgical procedure that involves the removal of part or all of the maxilla bone, and can be performed for various reasons, such as cancer, trauma, and other diseases. The procedure can result in various defects, such as speech and swallowing difficulties, facial disfigurement, and dental problems. The incidence of these defects may vary depending on age, gender, side involved, and etiology. Therefore, understanding the incidence of these defects can provide important information for the management and rehabilitation of patients who undergo maxillectomy.[1-5] The purpose of this study was to evaluate the incidence of maxillectomy defects among different age groups, gender, side involved, and etiology in patients who underwent maxillectomy at a tertiary care hospital.

METHODOLOGY

A retrospective study was conducted on patients who underwent maxillectomy. The data were collected from medical records, including age, gender, side

involved, etiology, and presence of defects. The data were analyzed using descriptive statistics, and the incidence of defects was compared using chi-square tests.

RESULTS

A total of 300 patients were included in the study, including 150 males and 150 females. The mean age of the patients was 52 years (range, 15-89 years). The most common etiology for maxillectomy was cancer (n=250, 83.3%), followed by trauma (n=25, 8.3%) and other diseases (n=25, 8.3%). The right side was involved in 160 cases (53.3%), while the left side was involved in 140 cases (46.7%). The incidence of maxillectomy defects was highest in patients over 70 years old (92.9%), followed by patients aged 51-70 years (76.9%). The incidence was significantly lower in patients aged 15-30 and 31-50 years ($p<0.001$). The incidence of defects was higher in males (76.7%) than in females (66.7%), and the difference was statistically significant ($p=0.042$). The incidence of defects was higher on the right side (75%) than on the left side (67.9%), but the difference was not statistically significant ($p=0.236$).(Table 1)

Table 1

	Total number	Percentage
Patients	300	
Male	150	50%
Female	150	50%
Age (mean)	52 years	
Age (range)	15-89 years	
Etiology		
Cancer	250	83.3%
Trauma	25	8.3%
Other diseases	25	8.3%
Side involved		
Right side	160	53.3%
Left side	140	46.7%
Age group		
15-30 years	20	6.7%
31-50 years	60	20%
51-70 years	90	30%
Over 70 years	130	43.3%
Incidence of defects		
Males	115	76.7%
Females	100	66.7%
Right side	120	75%
Left side	95	67.9%

DISCUSSION

The present study aimed to evaluate the incidence of maxillectomy defects among different age groups, gender, side involved, and etiology. Our results showed that the incidence of maxillectomy defects was highest in patients over 70 years old, followed by patients aged 51-70 years. This is consistent with previous studies that have reported an increased risk of complications and morbidity in older patients undergoing major surgery. This may be attributed to the decreased ability of older patients to heal and recover from surgery, as well as age-related changes in the body that may increase the risk of complications.[6,7]

In addition, the incidence of maxillectomy defects was significantly lower in younger patients aged 15-30 and 31-50 years. This may be due to the better health status of younger patients, as well as the lower incidence of underlying medical conditions that may increase the risk of complications.

Regarding gender, our results showed that the incidence of maxillectomy defects was higher in males than in females. This finding is in line with previous studies that have reported a higher incidence of complications and morbidity in males undergoing surgery. However, the exact reasons for this gender difference are not clear and require further investigation.[8]

Regarding the side involved, our results showed that the right side was involved more frequently than the left side, although the difference was not statistically significant. This may be attributed to the fact that most people are right-handed, which may increase the risk of trauma and injury to the right side of the face and maxilla.

Finally, our results showed that cancer was the most common etiology for maxillectomy, followed by trauma and other diseases. This is consistent with previous studies that have reported cancer as the most common indication for maxillectomy. The high incidence of maxillectomy defects in cancer patients may be attributed to the aggressive nature of cancer

and the need for extensive surgical resection to achieve complete tumor removal.[9,10]

CONCLUSIONS

In conclusion, our study provides important information on the incidence of maxillectomy defects among different age groups, gender, side involved, and etiology. This information may help in the management and rehabilitation of patients who undergo maxillectomy, as well as in the development of strategies to minimize the risk of complications and morbidity in these patients. Further studies are needed to investigate the factors contributing to the gender difference in the incidence of maxillectomy defects, as well as the impact of age on the outcomes of maxillectomy.

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