

Missed diagnosis play important role behind infected mandibular fractures without preceding surgery¹

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INTRODUCTION

Postoperative infections are common in patients with fracture of the dentate part of the mandible^{2,3}. Mandibular fractures are sometimes infected already at the time of the surgery due to treatment delay⁴. We evaluated causes for treatment delay in infected mandibular fractures and its effect on surgical site complications.

MATERIALS & METHODS

Patients with a purulent mandibular fracture of the dentate part of the mandible without preceding surgery were included in a retrospective study. Surgeries were performed between 2012 and 2022. Treatment delay in days, patients' substance and alcohol abuse, and factors leading to the treatment delay were collected. Correlation between treatment delay and postoperative surgical site complications (recurrent infection or surgical wound dehiscence without infection) were evaluated. P-values <.050 were considered statistically significant.

LITERATURE CITED

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RESULTS

Of 908 mandibular fracture patients, 41 had an infected fracture at the time of the primary surgery (4.5%). Treatment delay from accident to surgery varied widely (Table 1). Substance and alcohol abuse was common (46.3%). Patient-related factors (73.2%) and fractures missed by health care professionals (19.5%) were the most common reasons for delayed surgery (Figure 1). In three cases (7.3%), initially planned non-surgical treatment led to an infection during follow-up. No significant difference in treatment delay was found between patients with or without a surgical site complication (p=0.505, Table 2).

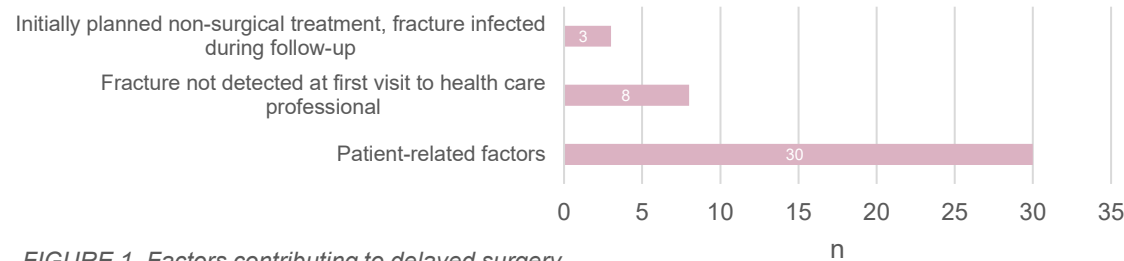


FIGURE 1. Factors contributing to delayed surgery.

TABLE 2	Surgical site complication present	Surgical site complication absent	P
All patients, n (%)	13 (31.7%)	28 (68.3%)	
Treatment delay from injury to surgery, days			
Range	3–76	2–45	0.505
Mean	14.7	14.6	
Median	6	9	

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CONFLICTS OF INTEREST

The authors report no conflict of interest.



FURTHER INFORMATION

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CONCLUSIONS

Substance and alcohol abuse was common in this patient population, which might explain the patient-related delay. A fifth of the patients had been evaluated by a health care professional, but the fracture was not detected at the first visit. An adequate clinical examination including imaging examinations (dental panoramic radiograph and/or computed tomography) are recommended for all patients with a recent facial injury. Delay does not increase risk of postoperative complication.

TABLE 1

All patients, n	41	
Age, years		
Range	17–73	
Mean	41	
Median	38	
Treatment delay from injury to surgery, days		
Range	2–76	
Mean	16	
Median	9	
	n	% of 41 patients
Smoking		
Yes	24	58.5
No	17	41.5
Alcohol and/or drug abuse		
Yes	19	46.3
No	22	53.7