



Management of Adult Condylar and Subcondylar Mandibular Fractures in a Level 1 Trauma Center



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Background

The management of condylar and subcondylar fractures remains controversial due to their technically challenging accessibility and risk of complications.

Objective: To examine the outcomes of conservative management, maxillomandibular fixation (MMF), open reduction with internal fixation (ORIF), and ORIF + MMF employed in the management of adult condylar and subcondylar fractures.

Methods



Retrospective study of 234 adult patients with 271 condylar or subcondylar mandibular fractures.



Data abstracted included demographics, fracture etiology and type, mechanism of injury, type of surgical approach and intervention, treating team, and complication rate.



Statistical analysis included descriptive statistics, and categorical variables were analyzed using Pearson’s χ^2 test and Fisher’s exact test.

Demographics

Demographic	Patients (%)
<i>Sex</i>	
Male	73.50
Female	26.50
<i>Age</i>	
18-64	91.45
≥65	8.55
<i>Race</i>	
Caucasian	64.10
Black	19.23
Hispanic	13.68
Other	2.56
Asian	0.43
<i>Etiology</i>	
Fall	31.62
Assault	31.20
Vehicle	
Closed	14.96
Open	11.97
Ped v. Auto	5.13
Cycling	1.71
Gunshot	1.28
Downward	0.85
Blow	
Unknown	0.43
Machine	0.43
Animal	0.43

Results: Treatment and Surgical Approach

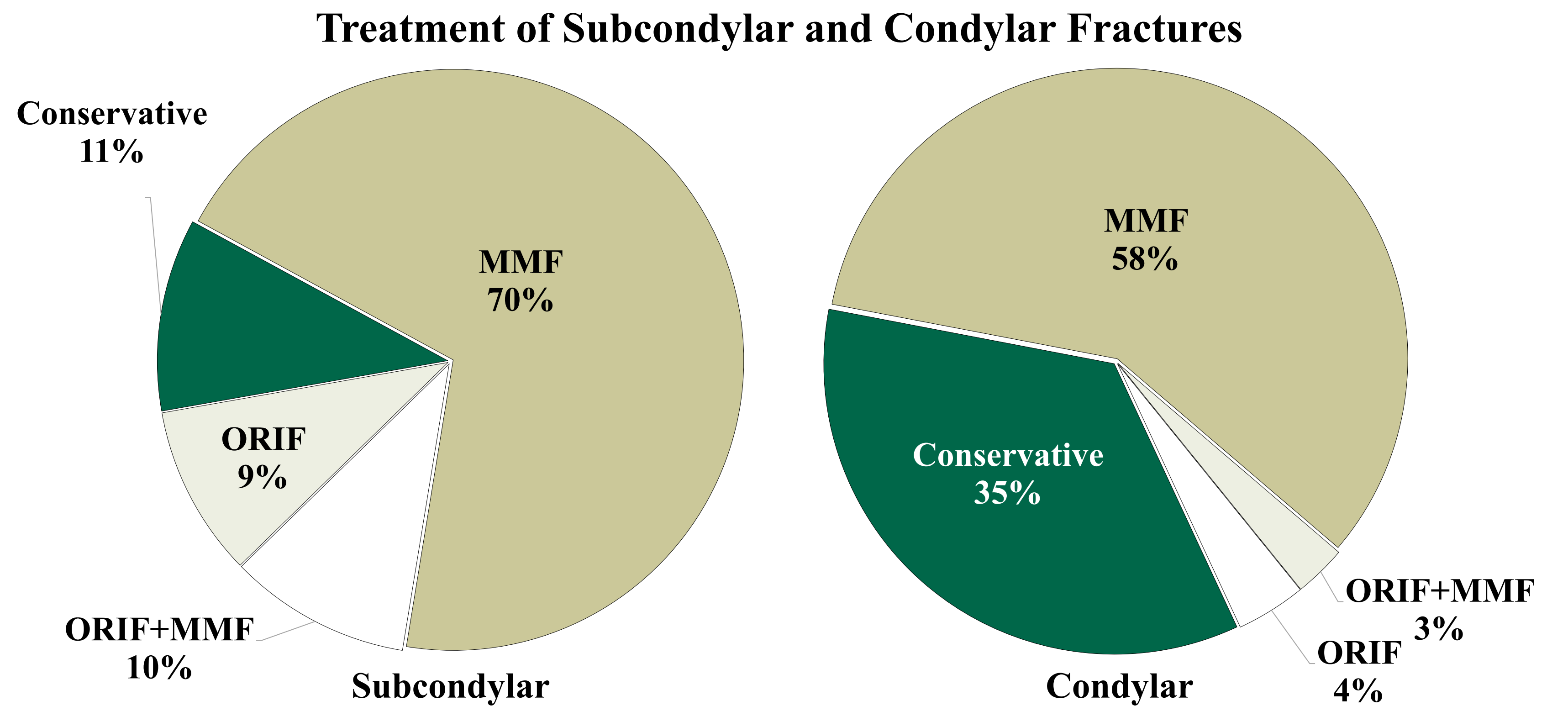


Figure 1. Compares the treatment modalities utilized for subcondylar and condylar fractures

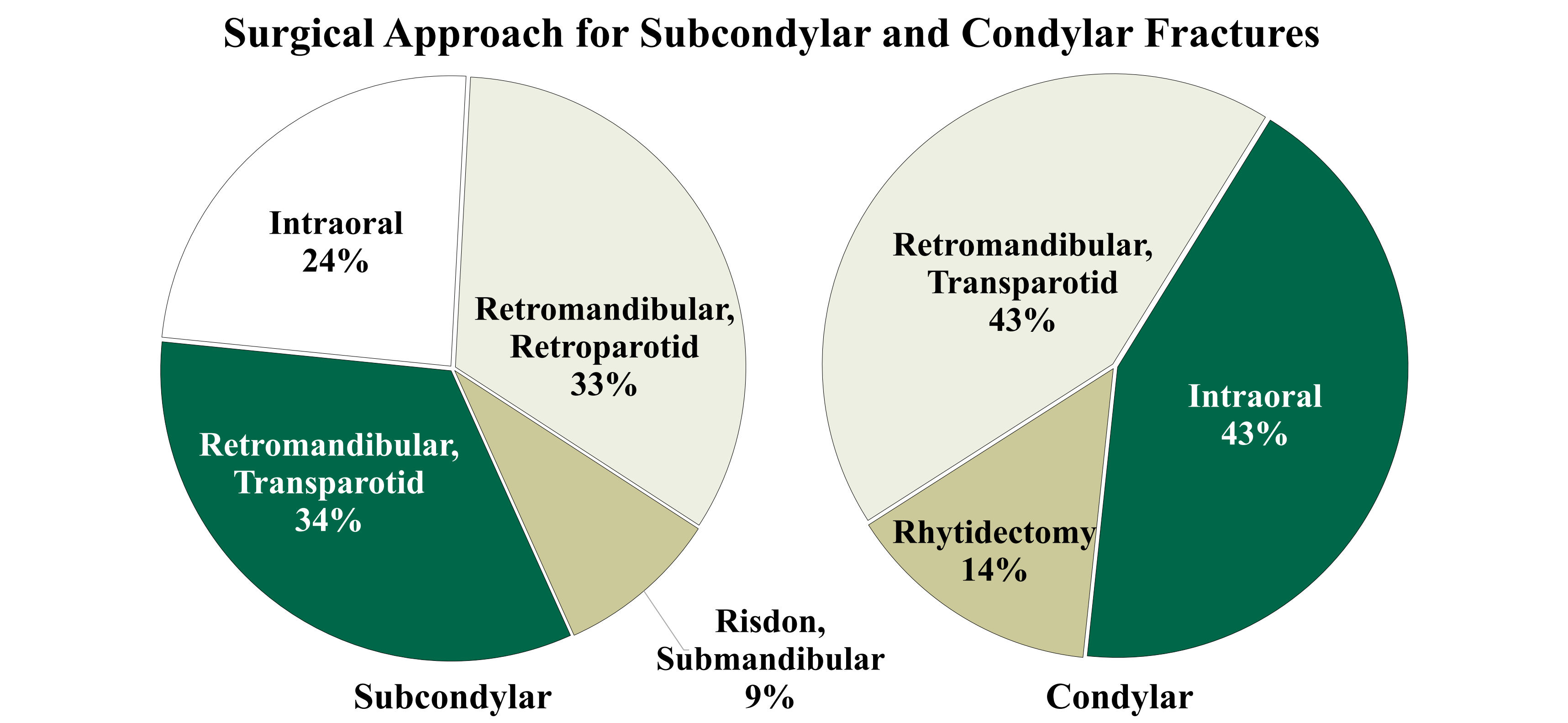


Figure 2. Compares the surgical approaches utilized for subcondylar and condylar fracture management

Results: Complications

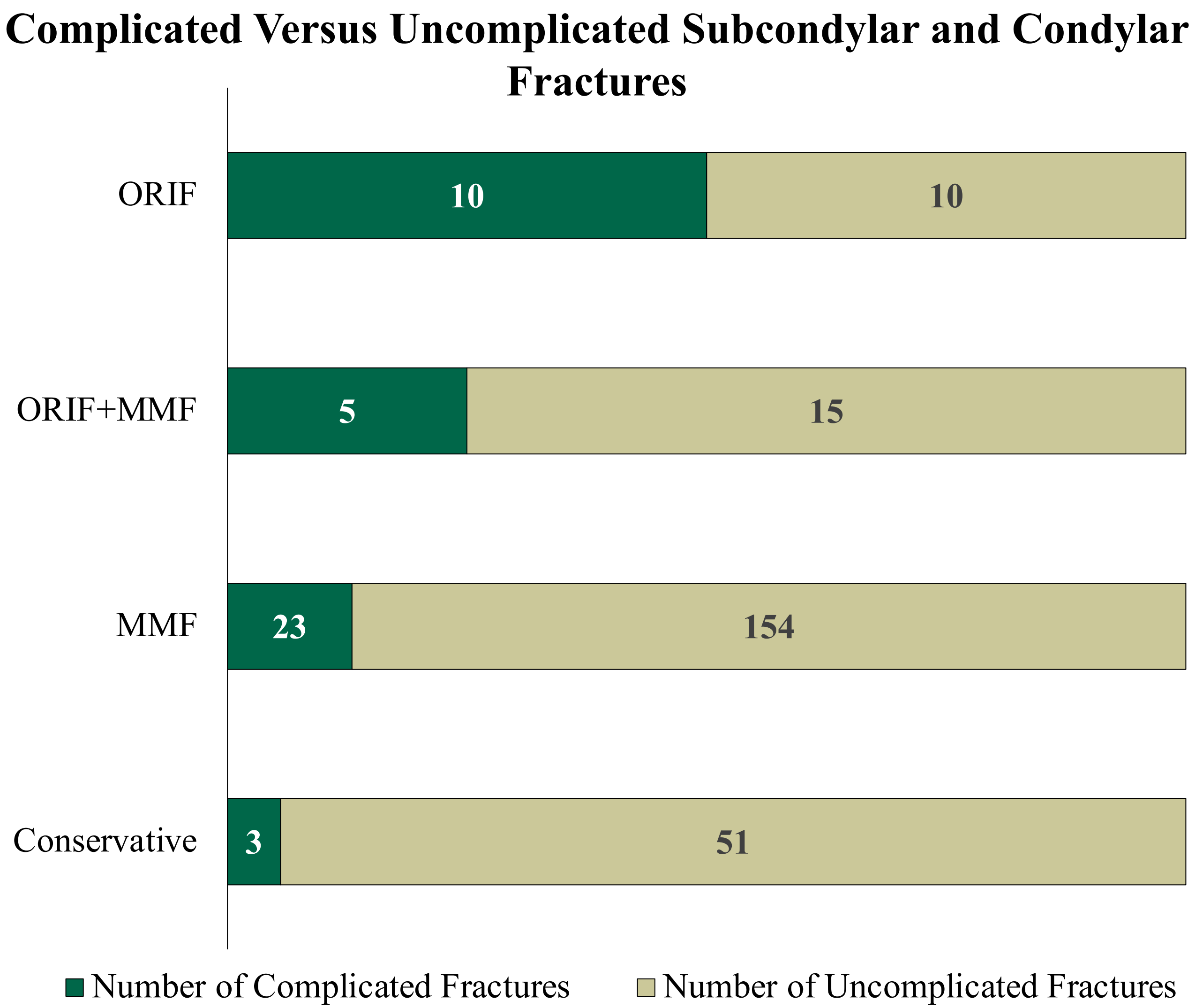


Figure 3. Compares complicated and uncomplicated fractures within each treatment modality

Conclusion

Non-surgical management remains a cornerstone of treatment, yet the nuances in outcomes between different therapeutic strategies highlights the need for a more tailored approach to care.