

Abstract

Aim : Review the management practices and patient outcomes for a subperiosteal abscess complication of sinusitis.

Method : Retrospective review of all patients hospitalized for subperiosteal abscess complication of sinusitis between 2017 and 2024.

Results : A total of 29 patients - average age 10.5 years (range 1–37)- were treated during the study period. After the initiation of symptoms, the average duration of progression was 5 days and antimicrobial treatment was used in 21 cases. Disease presentation showed an eyelid edema and edematous infiltration of the internal angle of the eye in all cases, purulent rhinorrhea in 21 cases, exophthalmus in 23 cases, oculomotor limitations in 12 cases and decreased acuity visual in 10 cases. On computed tomography, subperiosteal abscesses measured an antero-posterior average size of 15.9 mm and a width average of 6.1 mm.

All patients were treated with combination of parenteral antimicrobial therapy (Cefotaxime-Metronidazole). Vancomycin was associated in 12 cases. Surgical endonasal drainage was performed in 23 patients, combined with external drainage in 14 cases. On follow-up, all patients showed fully clinical and biological improvement.

Conclusion : The management of subperiosteal abscesses remains a subject of controversy. Our practice is based on antibiotic therapy and close monitoring in the absence of ophthalmic suffering. Surgery should be performed if there is no improvement within 48 hours. It consists of endonasal sinus drainage and drainage of the abscess if possible by the same route, otherwise externally.

PURPOSE:

Review the **management practices** and **patient outcomes** for a **subperiosteal abscess complication of sinusitis**

MATERIALS and METHOD:

Retrospective review of all patients hospitalized for subperiosteal abscess complication of sinusitis between 2017 and 2024.

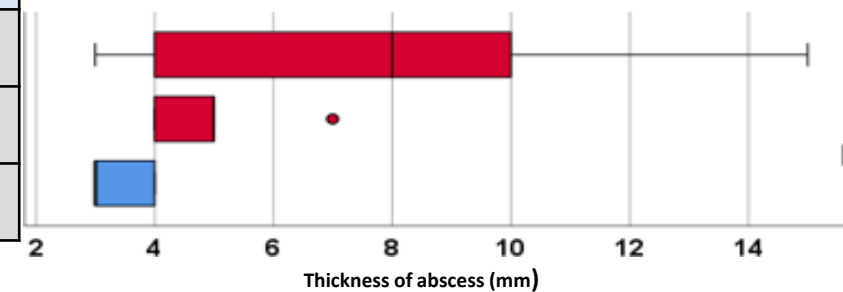
Results:

- Hospitalized patients = 29
- Average age of patients = 10.5 ± 7.8 years (1 to 37 years)
- Sex ratio (M/F) = 1.07

Management of subperiosteal abscesses : chandler stage III

Treatment	Our study (n=29)
Céphalosporines et Métronidazole	29 (100%)
+ Vancomycine	12 (64,7%)
Duration of antibiotic therapy (days)	13,7 ± 9,2 (de 7 à 58 days)
Surgical drainage	23 (79,3%)
- Endonasale only	9 (31%)
- Combined with external drainage	14 (48,3%)

Surgical drainage	Thickness of abscess (mm)	p (vs no)
Endonasal only	5,0 ± 1,2 (de 4 à 7 mm)	0,041
Combined with external drainage	7,9 ± 3,5 (de 3 à 15 mm)	<0,001
No	3,3 ± 0,5 (de 3 à 4 mm)	-



DISCUSSION / CONCLUSION:

- The management of **subperiosteal abscesses** remains a subject of **controversy**.
- Our practice is based on **antibiotic therapy** and **close monitoring** in the **absence of ophthalmic suffering**.
- Surgery** should be performed if there is **no improvement within 48 hours**.
- It consists of endonasal sinus drainage and drainage of the abscess if possible by the same route, otherwise externally.