

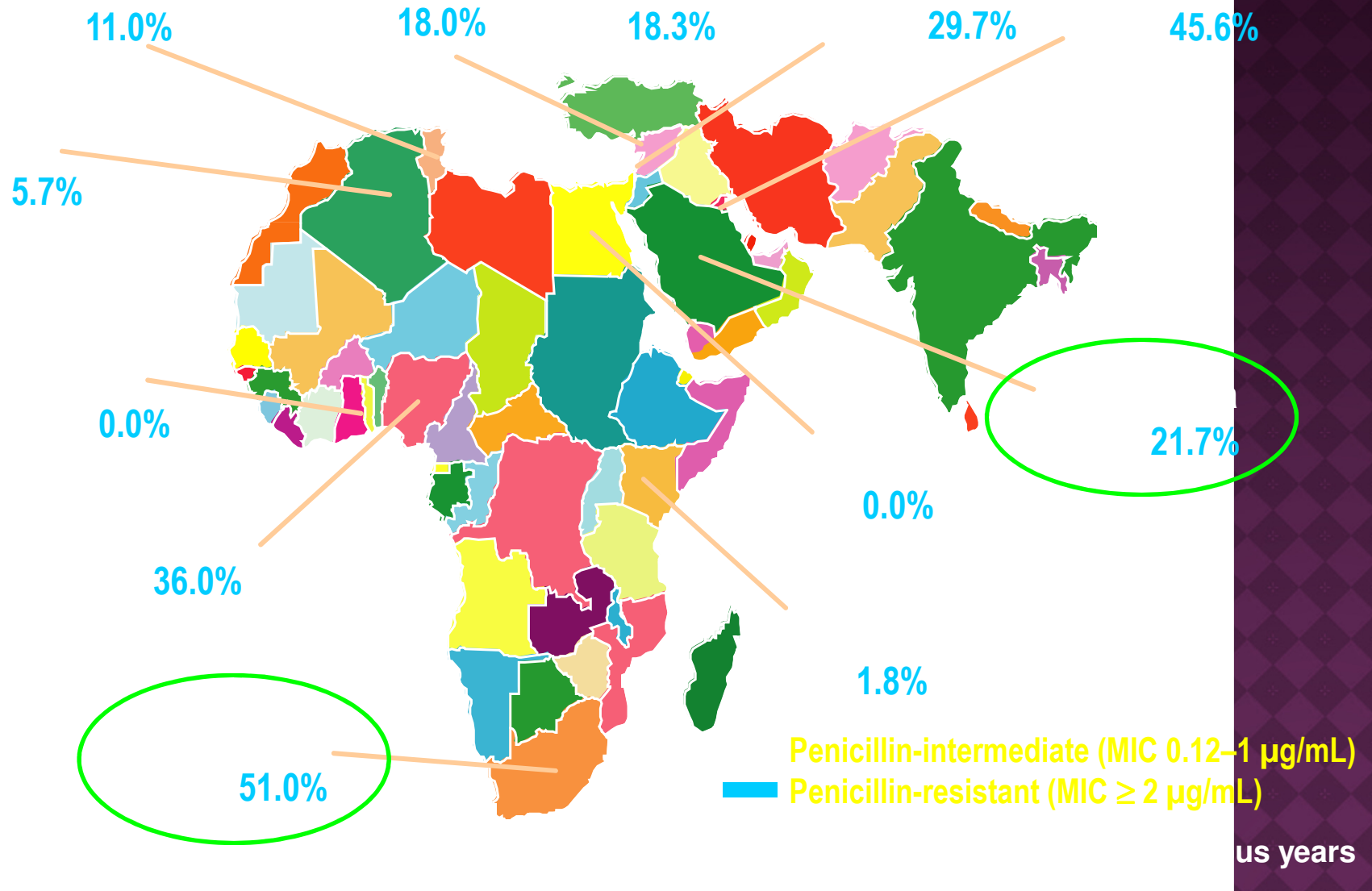
INSTITUTIONAL REVIEW: COMPLICATED SINUSITIS-

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MIDDLE EAST AND AFRICA: PENICILLIN-RESISTANT *S. PNEUMONIAE*



OUTLINE

- ◉ Introduction
- ◉ Aim
- ◉ Methods
- ◉ Results
- ◉ Conclusion
- ◉ Acknowledgement

INTRODUCTION

- ◉ Complications of acute bacterial sinusitis into orbital and intracranial sepsis is a common problem in pediatrics age group. (Pendas,2003)
- ◉ Between 0.5% and 24% of patients admitted to hospital with acute bacterial sinusitis develop intracranial and orbital complications. (Walker,2002).
- ◉ A delay in making a diagnosis of complicated bacterial sinusitis has a serious morbidity and mortality (Tshifularo,2006).
- ◉

AIM

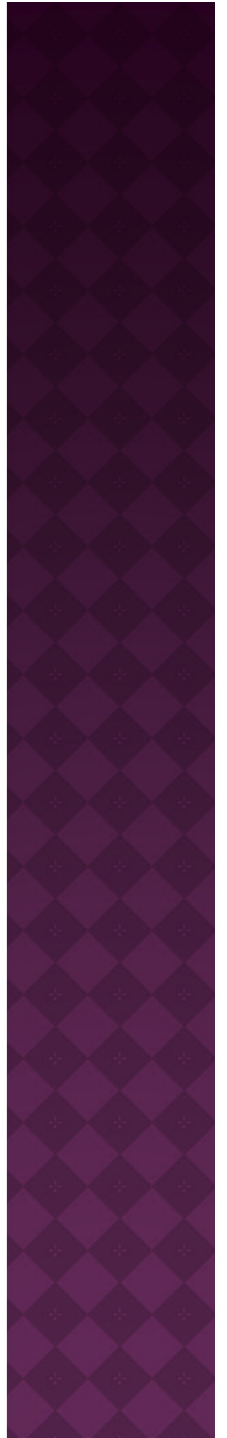
- ◉ To do an epidemiological study on all patients admitted with complicated sinusitis
- ◉ To update and modify treatment protocol evidence based approach.
- ◉ To review referral pattern by primary care doctors-knowledge and education.

METHODOLOGY

- ◎ TERTIARY INSITUTION
- ◎ PROSPECTIVE CASE SERIES .
- ◎ SAMPLE:ALL PATIENTS ADMITTED 2001-2006(PHASE I) ,2010-2014(PHASE II) 2015(PHASE III).
- ◎ EPI INFO v3/SPSS (statistical),CI 95%, $p < 0.05\%$.
- ◎ ETHICAL ISSUES/REPC:Approval certificate.

RESULTS

- ◉ DEMOGRAPHY
- ◉ REFERAL DEPARTMENT
- ◉ CLINICAL PRESENTATION
- ◉ COMPLICATION SITES
- ◉ MICROBIOLOGY
- ◉ TREATMENT



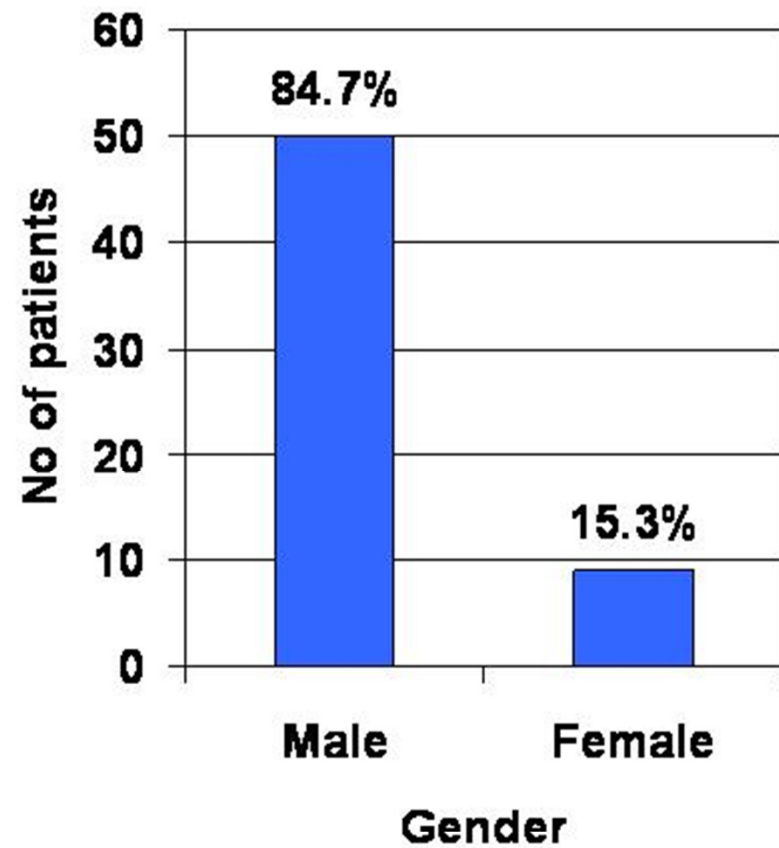
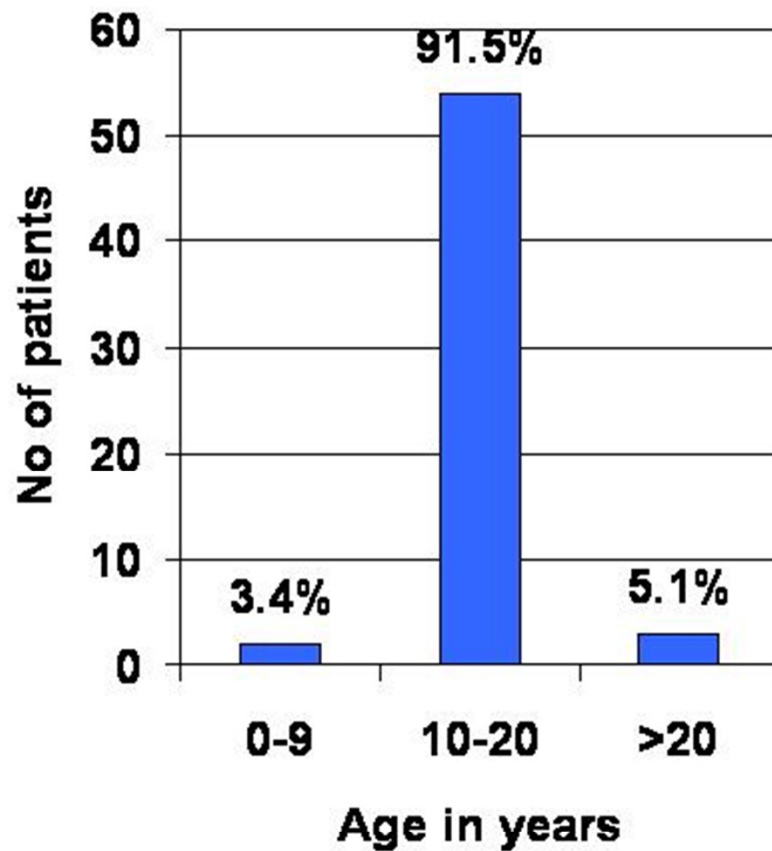


Fig. 1: Age and gender distribution

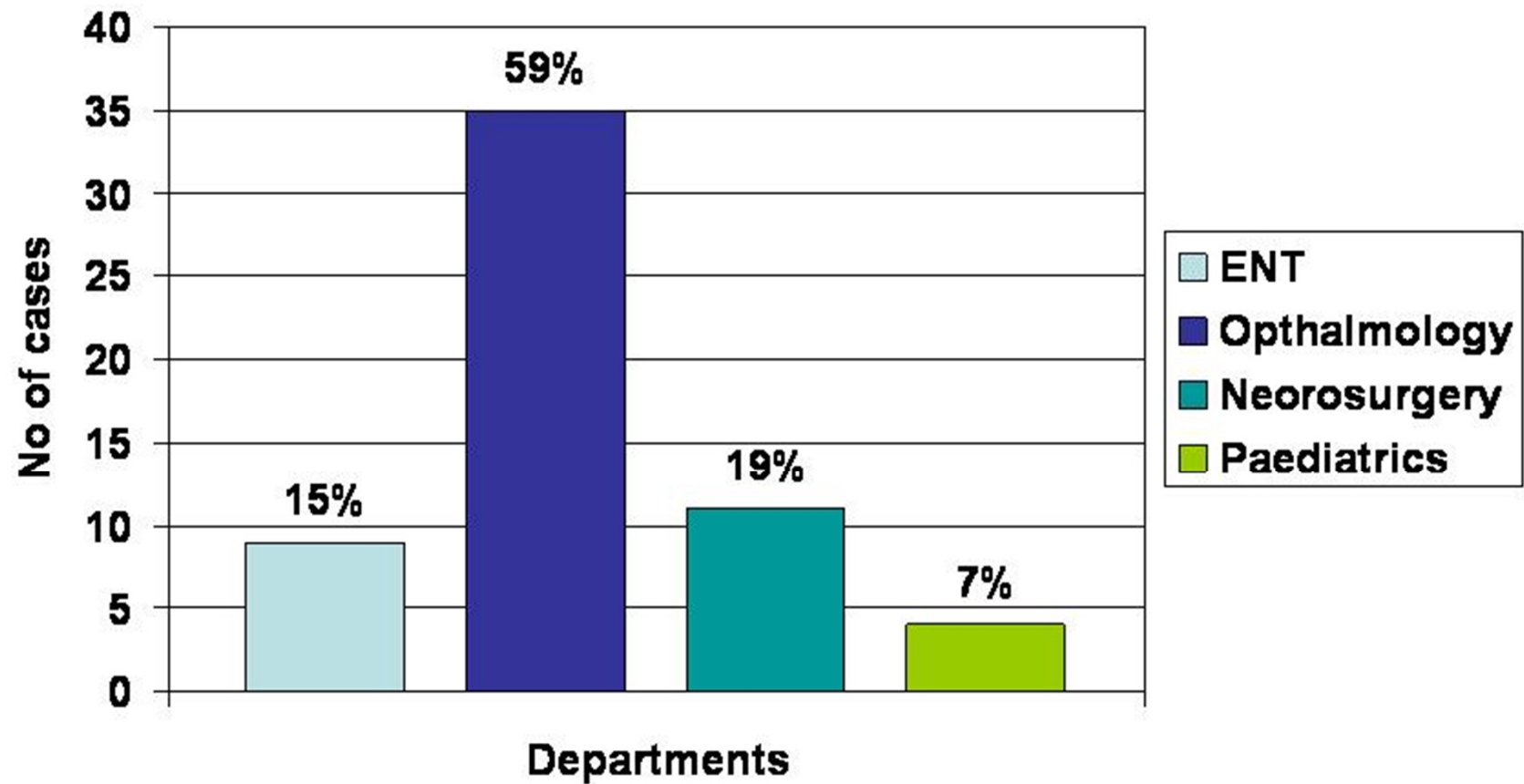


Fig. 2: Distribution of referrals to different departments

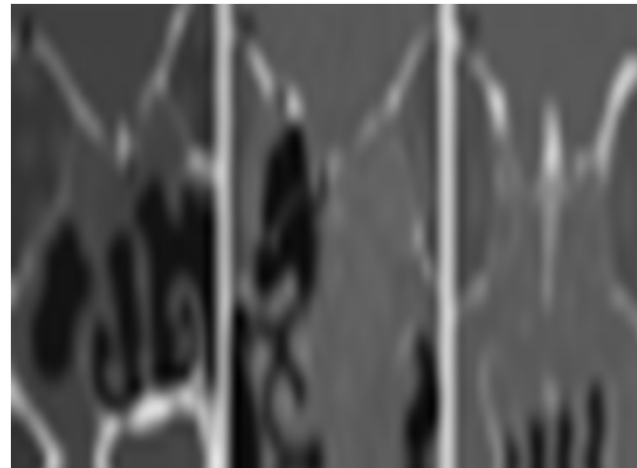
CLINICAL PRESENTATION

- Fever
- Facial swelling
- Headache
Persistent
- Proptosis, diplopia
- Fits, paralysis
- Nasal Blockage,
- Mental status
changes,
- Coma



DIAGNOSIS AND RADIOLOGY

- ⦿ Complications occurred mainly in winter cold months April-August yearly.
- ⦿ Contrasted CT Scan of the sinuses and brain confirmed the diagnosis.



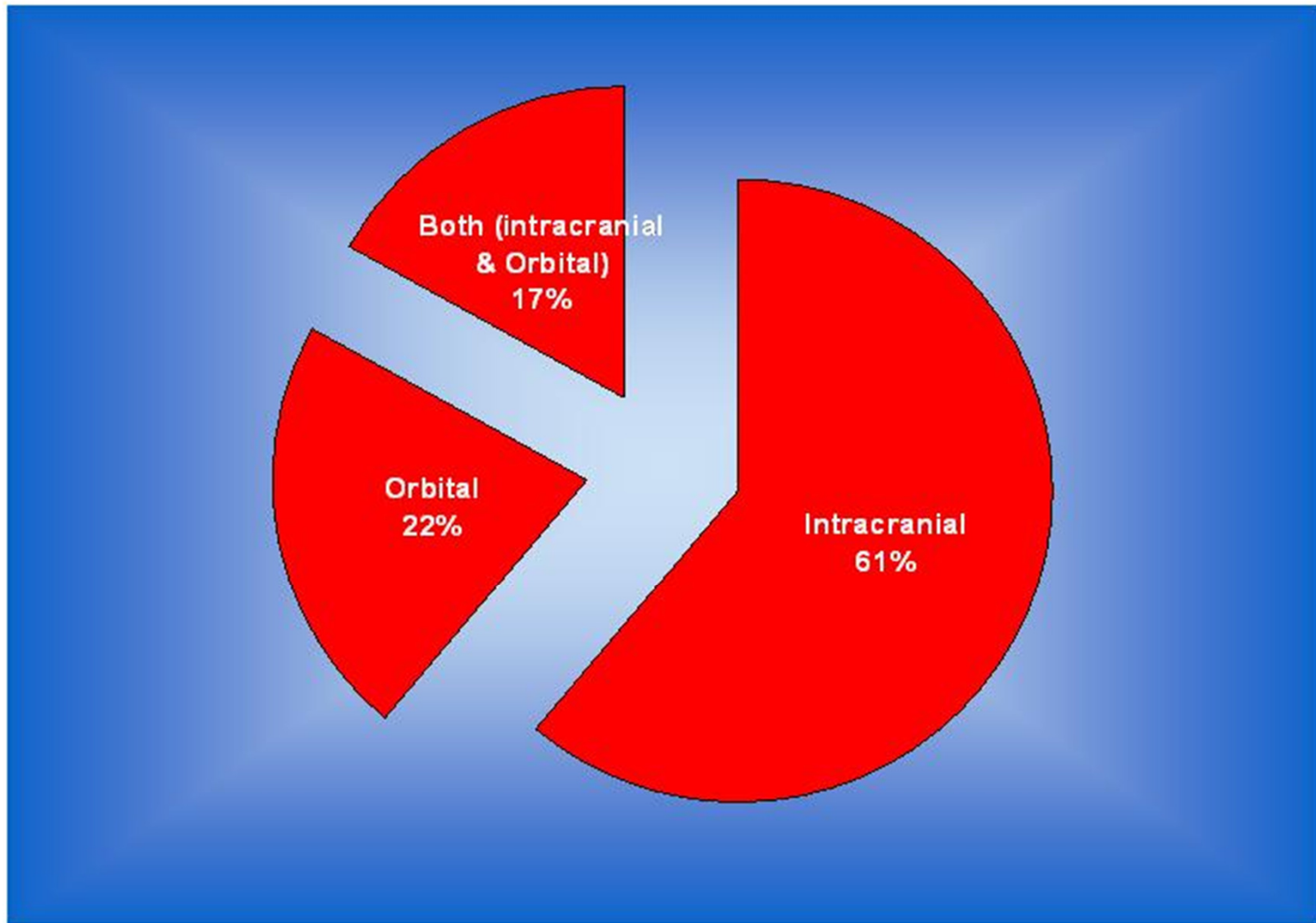


Fig. 5: Distribution of complications between orbital, intracranial and both



Fig. 70 Acute ethmoiditis with orbital cellulitis.



Fig. 71 Surgical drainage of acute frontal sinusitis.

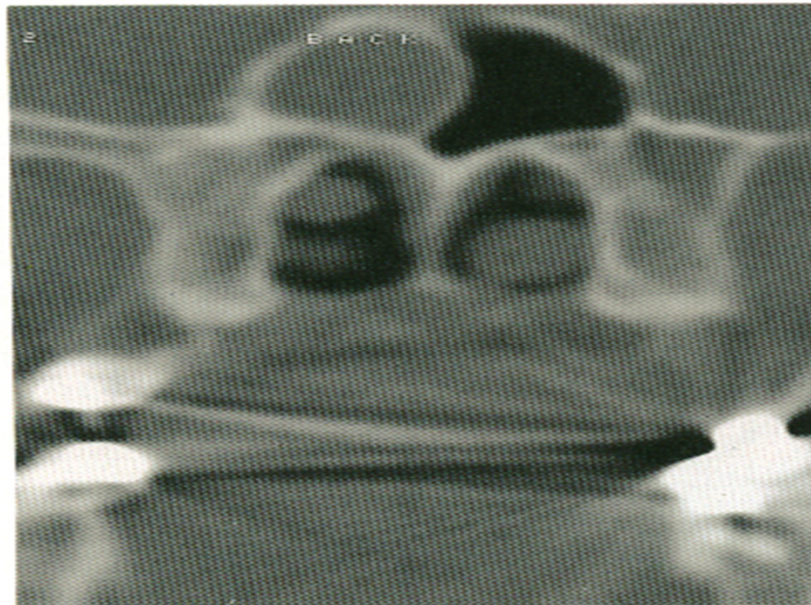


Fig. 72 Sphenoid sinus mucocele on CT scan.

Table 1: Micro-organisms isolated

Micro-organisms		Tshifularo (n = 25)	Bouwer <i>et al</i>	Zinnat <i>et al</i> (n = 339)	A. C. Swiet <i>et al</i> (n = 27)	G. David <i>et al</i> (n = 35)
Staph	<i>Epidermis</i>	20% (5)	–	–	–	–
	<i>Aureus</i>	16% (4)	0 - 8%	3%	13%	–
Strep	<i>Pneumonia</i>	0% (0)	20 - 35%	41%	10%	23%
	<i>Viridans</i>	16% (4)	–	–	–	–
Haemophilus influenza		12% (3)	5 - 25%	35%	26%	23%
Moraxella catarrhalis		0% (0)	2 - 20%	4%	–	11%
Anaerobes		12% (3)	–	–	–	–
Others	<i>Proteus Mirabilis</i>	8% (2)				
	<i>E. Coli</i>	4% (1)	–	3%	–	–
	<i>Klebsiella Pneumonia</i>	12% (3)				

DISCUSSION

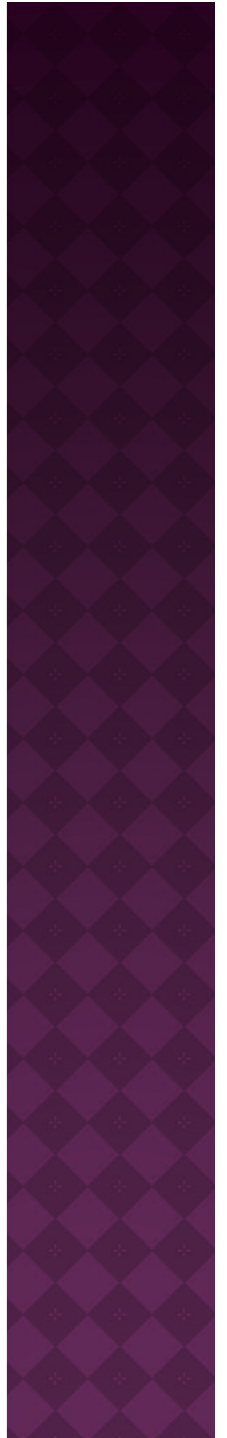
- ◉ .SURGERY COMBINED WITH MEDICAL TREATMENT WITH(AMPICILLIN, FLAGYL,AUGMENTIN/CEFOTRIAXONE/CHLORAMPHENICOL)WERE THE TREATMENT OF CHOICE. According to microbiology
- ◉ STAPH EPIDEMIS/MELLERIE WERE COMMONEST CULTURED BACTERIAS WITH 50% CULTURE NEGATIVE
- ◉ (EXTERNAL ETHMOIDECTOMY / FESS,BURR HOLES)-multidisciplinary approach-neurosurgeon,otorrhinolaryngologist and ophthalmologist
- ◉ FEMALES HAD HIGHER MORTALITY RATE THAN MALES IN OUR STUDY.(3 FEMALES DIED) NO MALE DEATH.

CONCLUSIONS

- ◉ NEW DEPT PROTOCOL:
- ◉ Any young pediatric patient who present with headache and facial swelling must be assumed to be having a complicated bacterial sinusitis until proved otherwise, a CT scan of sinusitis/brain must be done .
- ◉ Combined surgery and Medical treatment according to MCS results(resistance level).

ACKNOWLEDGEMENT

- ⦿ Patients
- ⦿ ENT Department
- ⦿ Disclaimer: None
- ⦿ No financial benefit





Tshifularo. Complications of inflammatory sinusitis
2000, SAFPJ.

7/16/2015