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**Published Paper's Title : Use Of Local
Gentamicin For Wound Healing In Mastoid
Abscess**



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Original Article

Use Of Local Gentamicin For Wound Healing In Mastoid Abscess

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Declaration

The Declaration of the author for publication of Research Paper in Asian Journal of Modern and Ayurvedic Medical Science (ISSN 2279-0772) Dr. Vishwambhar Singh the author of the research paper entitled Use Of Local Gentamicin For Wound Healing In Mastoid Abscess declare that , I take the responsibility of the content and material of my paper as I myself have written it and also have read the manuscript of my paper carefully. Also, I hereby give my consent to publish our paper in ajmams , This research paper is my original work and no part of it or it's similar version is published or has been sent for publication anywhere else.I authorise the Editorial Board of the Journal to modify and edit the manuscript. I also give my consent to the publisher of ajmams to own the copyright of my research paper.

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OBJECTIVE:

Mastoid abscess is one of most common complaint presented to an otolaryngologist. Our study aimed to evaluate the mastoid abscess cavity wound healing by use of local irrigation with gentamicin.

METHODOLOGY:

A total of 37 patients with mastoid abscess were selected. Full ENT and general examination was done. Abscess cavity was drained using universal precautions. Patients were divided into three groups using random number table's first packing of ear cavity with plain gauze second povidone-iodine and third povidone-iodine with gentamicin. All patients were given injectable ceftriaxone and followed on day3, 7, 15, 20 and 30 days.

RESULT:

The 37 patients aged between 2-57 years. Acute mastoiditis was more commonly the cause than chronic otitis media. Post auricular abscess was most commonly reported. Average time for healing of wound on clinical assessment with plain gauze was 27days,with povidone-iodine was 22days and povidone-iodine with gentamicin was 19 days.16 patients needed surgery at later days.

CONCLUSION:



Use of local gentamicin irrigation reduces the bacterial load in abscess cavity and thus provides faster healing of mastoid abscess cavity.

Introduction :

Mastoid abscess is one of the most common complaints presented to a otorhinolaryngologist.

Types:

- ❖ Post auricular
- ❖ Zygomatic
- ❖ Bezold's
- ❖ Citelli's
- ❖ Luc's
- ❖ Para or retropharyngeal

Causes:

- Acute Mastoiditis
- Chronic Otitis Media With Cholesteatoma
- ✓ Acute mastoiditis is more common in children and immunocompromised and chronic in adults.
- ✓ Age, socio-economic status, virulence of organism, immunity and Cholesteatoma influence its occurrence.

Clinical features mainly include pain, swelling, fever and ear discharge. Though incidence declined in post antibiotic era its incidence is increasing again as reported by many authors. Large multicentre study was done by LUNTZ et al (2001) reported ~ 85% cases less than 8 years of age. Multicentre studies, vaccination, proper nutrition, epidemiology, more insight to its pathophysiology, culture guided treatment protocols and prevention of hearing mechanism is demand of time in INDIA.

Methodology

- ✓ 37 patients were selected from ENT OPD with mastoid abscess.
- *Inclusion criterion:*

All patients with mastoid abscess were included.

- *Exclusion criterion:*

Patients having any intracranial complication were not part of the study.

- ✓ Patients were assessed on basis of history, full ENT head and neck and general examination.
- ✓ Otoscopy, otoendoscopy, otomicroscopy, CT scan and required blood investigations were performed.
- ✓ Abscess was drained following universal precautions.

Patients were divided into three groups using random number table and abscess cavity was packed

- ✓ All patients were given injection ceftriaxone and metronidazole.
- ✓ Sample was sent for culture sensitivity reports.
- ✓ Follow up was done on day 3, 7, 15, 20 and 30 days.
- ✓ Obliteration of abscess cavity was considered as treatment.

RESULT

- ❖ Post auricular abscess was reported most commonly (24/37) 65%. 3 had luc's abscess. Zygomatic abscess was 2 nd most common.
- ❖ CT scan confirmed Cholesteatoma in all cases of CSOM.



- ❖ Vertigo was reported by 7 cases.
- ❖ Tinnitus was reported by 3 patients.
- ❖ Hard of hearing in all CSOM cases, surgery was done at later dates in all such cases.
- ❖ Fever, post auricular swelling and pain was present in all cases.
- ❖ 19% cases acute mastoiditis required cortical mastoidectomy.
- ❖ 35% females reported to our study.

Conclusion

- Mastoid abscess affects both extremes of life commonly.
- Post auricular abscess is most common variety.
- Acute mastoiditis is more common a cause.
- Patients with low socio-economic status and rural background are more commonly affected.
- CT scan should be performed in all cases of CSOM presenting with mastoid abscess.
- Packing the mastoid abscess cavity after I& D with ribbon gauze soaked in povidone-iodine and gentamicin heals the abscess cavity almost equal in time as primary intension healing. Reduction of the local bacterial load appears to be the cause.

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HEALING TIME IN DIFFERENT TREATMENT GROUPS:

| Treatment group | Avg no.of healing days | Minimum no.of healing days | Maximum no.of healing days |
|-----------------|------------------------|----------------------------|----------------------------|
| 1 | 27 | 23 | 45 |
| 2 | 22 | 19 | 28 |
| 3 | 19 | 17 | 25 |



TREATMENT GROUPS

First group

- Plain sterile ribbon gauze.

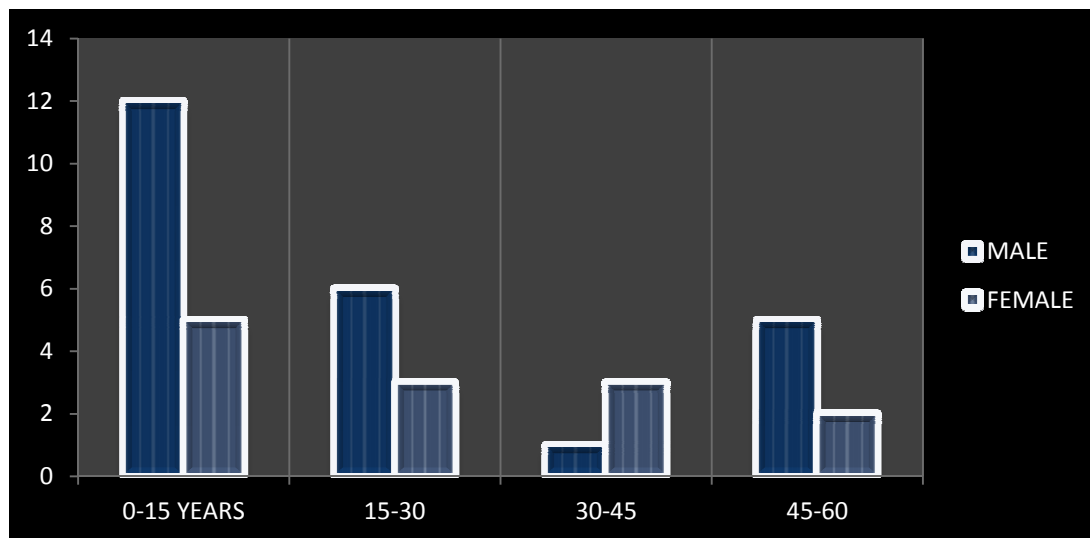
Second group

- Sterile ribbon gauze soaked in povidone iodine .

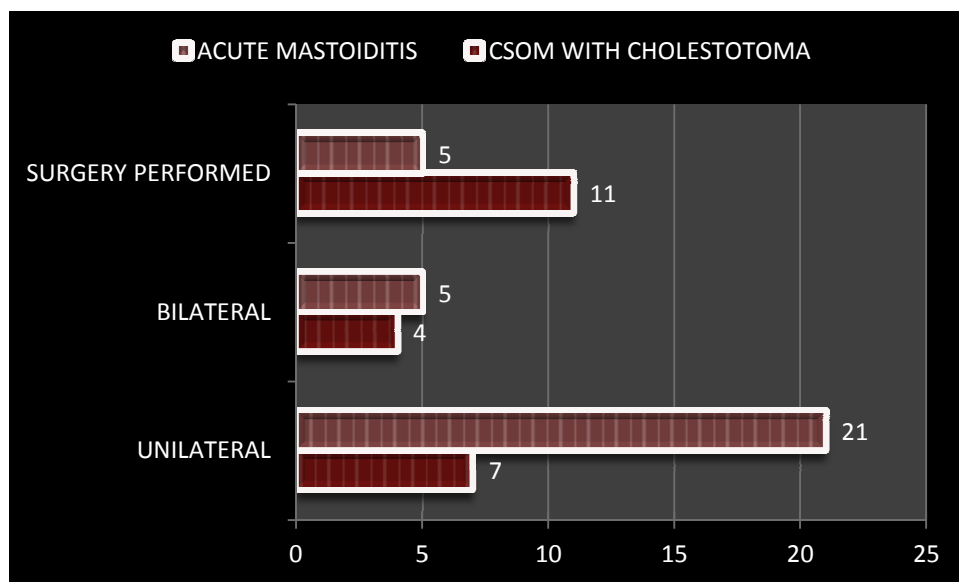
Third group

- Sterile ribbon gauze soaked in povidone iodine and gentamicin.

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