

A Clinical Study of Otorhinolaryngeal Problems in Pregnancy

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Abstract: ***Aim:** This study was conducted to evaluate the prevalence of otorhinolaryngeal diseases that occur in pregnancy and the relationship between the physiological changes. **Materials and methods:** This was a hospital based case control study conducted in 200 pregnant women attending the AnteNatal & ENT clinics of MMIMSR, Ambala, Haryana and St. Stephen's Hospital, New Delhi over a period of 1 year (September 2014 to September 2015). Group A (study group) : 100 pregnant women . Group B (control group) : 100 non-pregnant women. Statistical analysis was done by using SPSS (Statistical Package for Social Science) , version II , where χ^2 (chi square) test was used to compute significance. **Results:** The mean age of group A (study group) was 28.59 years, group B (control group) was 26.69 years. The most common otorhinological complaint in group A were – otitis externa (68/200 patients = 34%), allergic rhinitis (45/200 patients = 22.5%), otitis media (20/200 patients = 20%), eustachian tube dysfunction (18/200 = 9%), rhinosinusitis both acute and chronic (16/200 = 8%), LPRD (LaryngoPharyngeal Reflux Disease) as a part of GERD (Gastro Esophageal Reflux Disease) 16/200 = 8%, epistaxis (10/200 = 5%) sensorineural hearing loss (rare – 2/200 = 1%). **Conclusion:** Otorhinolaryngeal diseases in pregnancy are very common. Most are self limiting and respond well to conservative management. These facts should be kept in mind whenever any pregnant woman presents with any symptom pertaining to the ear, nose or throat so as to avoid unnecessary and overzealous treatment , both medical and surgical , to prevent adverse effects on both the mother and her fetus.*

Keywords: otorhinolaryngeal, pregnancy, rhinosinusitis, otitis, epistaxis.

Abbreviations

- LPRD – Laryngo Pharyngeal Reflux Disease
- GERD – Gastro Esophageal Reflux Disease
- ET – Eustachian Tube
- ENT – Ear Nose and Throat
- ASOM : acute suppurative otitis media

1. Introduction

Though physiological changes of pregnancy affect each and every organ of the body, still the relationship between pregnancy and the ear, nose and throat is usually forgotten and the relation between obstetrics and otorhinolaryngology is often underestimated. The hormonal and physiological adjustments during pregnancy have a strong bearing on the ear, nose and throat. Numerous otorhinolaryngeal symptoms might be encountered during pregnancy – though most might be minor and transient, some may be quite distressing and may require urgent and immediate intervention. This study was undertaken to evaluate the prevalence, clinical manifestations and management of thereof the various otorhinolaryngeal problems occurring in pregnancy.

2. Materials and Methods

Study design: hospital based case control study.

Subjects: This study was conducted in the AnteNatal and ENT clinics of Maharishi Markandeshwar Institute of Medical Science & Research (MMIMSR) , Ambala, Haryana and St. Stephen's Hospital, New Delhi over a period of 1 year (September 2014 to September 2015). A total of 200 patients were recruited in the study and divided into two groups as follows:

- Group A (Study Group)(pregnant) : 100

- Group B (Control Group)(non-pregnant) : 100

Statistical analysis was done by using SPSS (Statistical Package for Social Science), version II Chi square (χ^2) test was used to calculate significance.

3. Results

- The mean age of group A (STUDY GROUP) = 28.59 years and that of Group B (CONTROL GROUP) = 26.69 years. The most common otorhinological complaints were – otitis externa, allergic rhinitis, otitis media, eustachian tube dysfunction, acute and chronic rhinosinusitis, LPRD (Laryngo Pharyngeal Reflux Disease), epistaxis and rare ones like sensorineural hearing loss (Table 1).
- Most of the patients were in their third trimester (53%), then first trimester (27%) and second trimester (20%), most of them were primigravida (78%) followed by second gravida (22%).
- The mean age of gestation was 29.38 weeks.

Table 1: Otorhinological complaints of the patients

Diagnosis	No of patients	Percentage (%)
1) Otitis Externa	68	34.0
2) allergic rhinitis	45	22.5
3) acute sinusitis	22	22.0
4) ASOM(acute suppurative otitis media)	20	10.0
5) chronic rhinosinusitis	20	10.0
6) Acute tonsillitis	18	9.0
7) Eustachian Tube dysfunction	18	9.0
8) Laryngo Pharyngeal Reflux Disease(LPRD)	16	8.0
9) Acute laryngitis	15	7.5
10) Acute pharyngitis	15	7.5
11) Epistaxis	10	5.0
12) otitis media with effusion	10	5.0
13) traumatic tympanic membrane rupture	3	1.5
14) sensorineural deafness	2	1.0
15) parotitis	2	1.0

*Many of the patients had multiple symptoms and the above symptomatology overlapped in most of the patients.

4. Discussion

In our study the mean age of the group A (Study Group) was 28.59 years and that of Group B (Control Group) was 26.69 years which is the peak in reproductive years. The most common otorhinological problem was Otitis Externa which was seen in 34.0 % of the study group. The p value for occurrence of Otitis Externa during pregnancy was $p = 0.002$ and shows strong significance of this observation. This may be as a part of the generalised physiological dermatological changes and increased eccrine activity observed during pregnancy (B).

These results were similar as cited by some other studies by Fiona Broughton et al (1), Stephanie A et al (2), Dugan-Kim et al (3) and Bhagat D R et al (4). Epistaxis was observed in 5 patients (incidence of 2.5%) which was similar in a study reported by Kenny , Patil R et al (5) but differed from a study by Dugan Kim et al (3) with 20% incidence in pregnancy and 6% in non-pregnant state. Allergic manifestations were very common during pregnancy presenting as sinusitis, rhinitis, laryngitis, pharyngitis, tonsillitis etc (22.5 %) which is similar to those cited by Whitehead et al (6).

We found 16 cases with LPRD (8%) as a part of GERD which is similar to a study by Ramu B et al (7).

5. Conclusion

Otorhinolaryngeal complaints are encountered very commonly during pregnancy. Most of them are minor and transient and can be managed conservatively as they improve post partum. Keeping these facts in mind while dealing such problems can prevent unnecessary interventions and drug therapy thus avoiding any untoward effect on the mother or her fetus. A joint management by the obstetrician in collaboration with the otorhinolaryngologist will result in optimum cure in all such cases.

6. Funding

None

7. Conflict of Interest

None

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