MedCrave
Step into the World of Research

Journal of Otolaryngology-ENT Research

Opinion

Open Access

CrossMark

How i see the development of acquired cholesteatomas based on 3 fundamental factors

Volume 9 Issue 4 - 2017

Sinval Pereira dos Santos
Chief of the Minas Gerais Otorhinolaryngolgy Institute training program recognized by the Brazilian Association of Otorhinolyngology and Cervicofacial surgery, Brazil

Correspondence: Sinval Pereira dos Santos, Minas Gerais Otorhinolaryngolgy Institute, Av Afonso Pena, 2928, Funcionários, Belo Horizonte, Brazil, Tel 30130-007, Email diretoria@institutodeotorrino.com.br

Received: December 08, 2017 | **Published:** December 12, 2017

Opinion

The etiopathogenesis of the acquired cholesteatoma presents several theories, but there are still points not clarified; only the retraction of the flaccid or tense tympanic membrane, Bezold's theory (1888) is accepted by the majority. I present, in this account based on knowledge acquired from my experience, the hypothesis that three elements are fundamental in their formation.

The retraction of the entire tense membrane, or, more commonly, only in the postero-superior and posterior-inferior portion, destroys the long process of the anvil and stirrup creating a space where the retracted membrane (never the skin of the meatus) penetrates until the attic and a few times to the antrum, keratinizing, accumulating and forming a dry cholesteatoma, which destroys, from medial to lateral, the rest of the anvil and the head of the hammer, rests on a smooth, regular contour bed - characteristics very well seen in the tomography, and surgery evidently. This dry cholesteatoma can be diagnosed by seeing a dark crust adhered to the lateral wall of the attic behind the hammer's neck. It is a pathognomonic lesion, but because it hurts a lot and bleeds a little, its removal should not be attempted. Cholesteatoma is there covered up.

The retraction of the poster inferior portion of tympanic membrane, including the niche of the round window, buries the mucosa of the cells of this region, leaving it without ventilation of the Eustachian tube and without oxygen, therefore edemacia, hypertrophy, produces granuloma and secretion, that increasing its volume breaks the thin membrane, exposing granular hypertrophied mucosa, which subsequently infects, stimulates keratinization of the rest of the retracted membrane and its recesses, including increasing the keratinization of the dry cholesteatoma of the attic and antrum,, is the SECONDARY CHOLESTEATOMA that everyone knows.

What would prove this thesis? - Patients withdrawn from a series of more than 2,400 cholesteatoma surgeries, more than 90% conservative open technique, all performed by the author for 47years, and accompanied by him (sometimes with the help of residents) for 3, 4 or 5months, until complete epithelization of the cavity (condition sine qua non, or cicatriza or cicatriza), which remained with their dry cavities for 10, 15, 20, 30years, and then presented granulation in the postero-inferior portion of the mesotympanum, including window niche round. Those who consulted only for many months or even years after they felt odor or secretion in the ear presented, in addition to granulation, with the cavity of the mastoid totally full of keratinization or cholesteatoma. Showing the importance of granulation in its formation. The imfection is secondary a granulation. They were resolved, in the ambulatory, with washing with warm water and the removal and cauterization of the granulation. Without granulation, dry cholesteatoma would remain dry, as with cholesteatoma of external meatus, and also with a small cholesteatoma that forms with partial destruction of the lateral wall of the attic, resting on the side face of the anvil body and hammer head, without bury mucous, remains dry forever.

The mid-posterior region of the mesothympanum, including a round-window niche, which I have called for more than 30years as a true Achilles heel of open mastoidectomies, presents granulations more frequently because the cells there are in contact with all cells of the mastoid cells through the cells located medialy to the facial of the mastoide, and also, with cells to the tip of the petrous pyramid through hypotympanum cells and infra-labyrinthine cells. They are cells that also run out of oxygen, because the attic and aditus was blocked by dry cholesteatoma.

In primary cholesteatoma, the membrane, when retracted to the attic and into the antrum of a much pneumatized temporal, buries mucosa of many cells, forming granulations quickly. Unlike the secondary cholesteatoma, which sits on the medial attic wall or in the antrum of a sclerotic or eburnal temporal. It matrix is always, regular, smooth and without granulation, that can and should be saved in open mastoidectomy. While the primary colesteatoma matrix always shows a lot of granulation. It needs to be removed.

To avoid granulating in the short and long-term postoperative period, all possible cells of the temporal bone should be removed, such as: cells of the anterior tympanic sinus or Krestnner recess; cells of the medial attic wall; supra-labyrinth cells; solid angle cells; Trautmamm triangle cells; cells of the sino-dural angle; middle fossa plate and posterior fossa plate cells; zygomatic cells; mastoid tip cells; cells between the sigmoid sinus and the facial nerve, retro and medial to the facial of mastoid portion; lateral cells to the second knee of the facial, always found when the complete lowering of the wall is done; facial recess cells; cells of the round window niche, taking care of the cochlea membrane; cells of the posterior tympanic sinus and hypothypanum (caution with jugular bulb). For more than 40years, I have sometimes placed a cartilage to strengthen the membrane in the lower-posterior portion, in addition to removing the cells with diamond drills, without liquid to seal them, with the bone powder. Even so, there is a formation of granulation, in some cases, because of the connection of the cells of that region with cells of the mastoid and cells of the tip of the petrous pyramid (it is a true marsh).

The removal of the cartilage from the inferior and anterior portion of the external meatus to strengthen the membrane gave me a cry of Eureka 30years ago, noting that the cartilaginous canal became completely loose, being possible to move it up and back, because of that is possible to leave the entrance of the of meatus, nornal, without blind spots in the open mastoidectomy. It facilitates mold adaptation of prostheses, in addition to aesthetics and freedom for swimming or diving.

Controversies

In primary cholesteatoma what occurs is a retraction that goes to the attic and antrum forming the cholesteatoma, which should also be classified as a secondary cholesteatoma, since it is always preceded by a retraction of the attic wall of variable dimensions, is always found in the contraleteral ear of the cholesteatoma. There are also views in the ears of children, in which we put a tube in an attempt to avoid cholesteatoma. I rarely saw perforation, sometimes in the tuba, and only then, where the retracted membrane, being very thin, disappears by infection, leaving a perforation. The granulations of the secundary colesteatoma are not perforations, but rather wounds in the retracted membrane or matrix. If there are not many, or if it is only one, it is possible, with its removal and cauterization, to obtain a scarred and normal retracted membrane.

In all secondary cholesteatomas, I was able to identify the whole tympanic ring and the tense part of the retracted membrane as the cholesteatoma matrix. There is no need to migrate skin from the external meatus, since there is always an array there, formed by the retracted tympanic membrane, the migration would have to pass over the normal tympanic ring. I do not think so.

Total perforations prevent cholestetomas. In the atelectasias, if it removed all tense part causing a big or a total perforation, would avoid the formation of secondary cholesteatoma. It could form a dry cholesteatoma in the attic. There would be no burial of mucosa, and so, no formation of granulations, indispensable for colesteatoma formation. Few times, total perforations are found with rest of membrane retracted on the hammer and anvil forming dry cholesteatoma in the attic.

Acknowledgments

None.

Conflicts of interest

Author declares there are no conflicts of interest.

Funding

None.

Citation: Santos SPD. How i see the development of acquired cholesteatomas based on 3 fundamental factors. *J Otolaryngol ENT Res.* 2017;9(4):623–624. DOI: 10.15406/joentr.2017.09.00294