



The ear and its malformations: strange beliefs and misconceptions

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Received 20 February 2003; accepted 14 May 2003

KEYWORDS

Ear; Pinna;
Malformations;
Dysplasia; Aplasia;
Auricle reconstruction;
History; Beliefs;
Misconceptions

Summary Objective. To explore the strange beliefs and misconceptions related to the ear and its malformations, and how these have changed from ancient times until today.

Methods. Ancient documents, journal articles, and history books were studied to research ancient and current beliefs and misconceptions with regard to the ear and its malformations.

Results. The ear has been the centre of various beliefs and misconceptions through human history. Discoveries in the area of Assyria and Babylonia have revealed that the inhabitants of these countries not only had documented various congenital dysplasias of the ear but also they believed that these malformations had prophetic meaning and implied hereditary disorders. These observations and prophecies may very well have their origin to the 4th millennium BC. Egyptian and Greek-Roman medicine had suggested strange connections of the ear with close or remote parts of the human body and similar beliefs can be found through the later centuries. Hebrew and Greek-Byzantine conceptions of the perfect appearance that priests or kings should have, led to exclusion of people who had congenital ear malformations and even to mutilation (cutting off the ears) as a method of punishment.

Conclusion. The present study illustrates the wide variety and the long history of misconceptions related to children born with congenital malformations of the pinna and the external ear canal. These misconceptions may have led to a conscious and subconscious anxiety and pressure from parents and patients to ENT and plastic surgeons to correct the ear malformations as soon as possible in order to avoid psychological and social problems.

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The ear has not always been considered as the organ of hearing

Today modern medicine is exploring the finest details of ear anatomy and physiology. Cochlear

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implants, one of the major recent advances in otology, are giving hearing to profoundly deaf children and adults.¹⁻⁵ Plastic surgery has finally achieved, after decades of failures, pinna reconstructions that are cosmetically acceptable and regarded as successful by the patients.^{6,7} However, it was not long ago that the pinna had been the centre of various strange beliefs and some misconceptions and some people still believe that the ear serves not only hearing but other functions as well.

The aim of the present paper is to offer a trip through history exploring some of these past strange beliefs and how they have changed up to the present.

Assyrio-Babylonians times

An archaeological discovery that changed our knowledge of the beliefs of ancient people about the ear and its malformations

Our knowledge of the ancient beliefs relating to human ear congenital malformations was very limited until the middle of 19th century. Then, an unexpected and astonishing discovery changed this situation entirely and dramatically. Assyrians and Babylonians (from around the 3rd millennium BC to 500 BC) were two peoples that in their peak occupied all the lands between the Persian Gulf and Mediterranean Sea. However, there was little or no evidence regarding their culture and their everyday life until the excavations that took place between 1840 and 1852. During these years, in the mountain of Koyunjik, near the river Tigris, opposite Mosul (Iraq), the library of the great Assyrian King Assurbanipal (669-625 BC) was discovered. Fortunately, this library was not composed of printed or written books that might have been destroyed, stolen, sold or used for other purposes. It was composed of the much more permanent brick tablets, covered with cuneiform characters. They were, usually, only sun-dried and stored on (inflammable) wooden shelves, and often inadvertently baked while a city was destroyed and treasures were removed. Clay was not valuable to treasure hunters and robbers in later times and clay tablets (at least until the 19th century) were left untouched and thus saved for posterity.⁸

The total number of tablets, cylinders, and cuneiform inscriptions so far discovered is approximately estimated as 300 000, which, if published, would cover more than 400 octavo volumes of 400 pages each. Unfortunately, only about one-fifth of

all these have been published so far; but even this contains more than eight times as much literature as is contained in the Old Testament. The period of time covered by these documents is more surprising than their number. They cover from about 5000 BC, down to the first century before Christ.⁹

Although these tablets (Fig. 1) dealt with all possible matters, it was very surprising to find a long list of monstrous births with their prophetic meanings. It is possibly the most detailed evidence that we have from ancient times with regard to congenital dysplasias.¹⁰

The Assyrio-Babylonians who probably wrote the tablets tended to correlate all the natural phenomena and parts of human bodies with divine purposes and thus they gave prophetic meanings to every observation. Among the various subdivisions of divination—belomancy: divination by means of arrows—there was a special subdivision that may be called Foetomancy or Teratoscopy.¹⁰ Lenormant (1875), in his work on ancient divination,¹¹ devotes a special chapter to the omens derived from monstrous births and to 'genethliaque', the art of horoscopes of births, that had led the Babylonians-Babylonians to attribute great importance to all the teratological facts. The Assyrio-Babylonians claimed that an experience of 470 000 years of observations, all concordant, fully justified their system, and that in nothing was the influence of the stars marked in a more indubitable manner than in the fatal law which determined the destiny of each individual, according to the state of the sky at the moment when he came into the world. The result was that these ancient nations considered all dysplasias that neonates exhibited as the inevitable and irremediable consequence of the action of these astral positions and these dysplasias themselves could, in turn, predict the future.^{10,11}

Among the various congenital malformations and their meanings, those concerning the pinna and the external ear canal are as follows:^{10,12}

'When a woman gives birth to an infant

- (1) that has the ears of a lion, there will be a powerful king in the country;
- (2) that wants the right ear, the days of the master (king) will be prolonged and reach old age;
- (3) that wants both ears, there will be mourning in the country, and the country will be lessened (diminished);
- (4) whose right ear is small, the house of the man (in whose house the birth took place) will be destroyed;
- (5) whose ears are both small, the house of the man will be built of bricks;

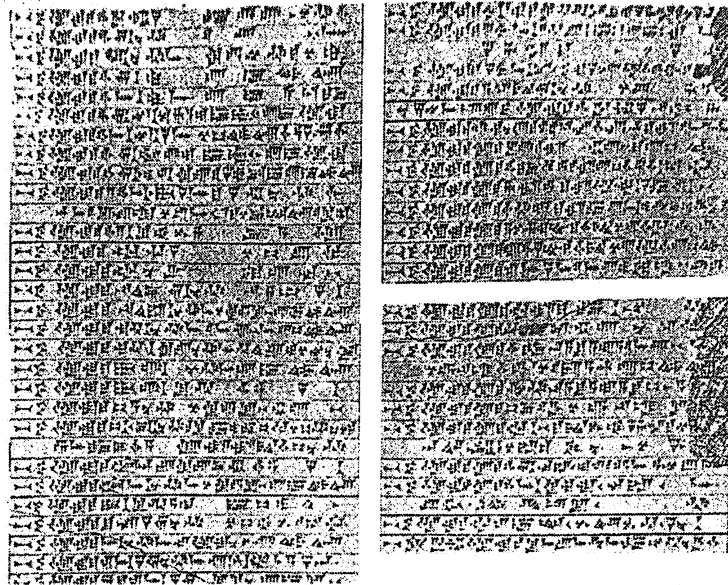


Fig. 1 Clay tablet—library of the Assyrian King Assurbanipal (669–625 BC).

- (6) whose right ear is *mudissu tehaat* (monstrous), there will be an androgyne in the house of the new-born;
- (7) whose ears are both *mudissu* (deformed), the country will perish and the enemy rejoice;
- (8) whose right ear is round, there will be an androgyne in the house of the new-born;
- (9) whose right ear has a wound below, the house will be destroyed;
- (10) that has two ears on the right side and none on the left, the gods will bring about a stable reign, the country will flourish, and it will be a land of repose;
- (11) that has some pieces of flesh (skin) hanging on the head, there shall be ill-will;
- (12) that has some branches of flesh (skin) hanging on the head, there shall be ill-will; the house will perish;
- (13) that has on one side of the head a thickened ear, the firstborn of the men shall live a long time;
- (14) that has on the head two long and thick ears, there will be tranquillity and the pacification of litigation (contests)''

Therefore, it can be gathered that a considerable number of malformations were known to these peoples long before 2000 BC. A surprising fact is that many of the described aural deformities are similar to those which Lombroso has in more recent times (second half of 19th century) described as met with in hereditary criminals¹⁰ showing that prophecies and misconceptions can survive and spread through centuries and through nations.

Although many of these beliefs and meanings

appear superstitious today, some of the predictions are noteworthy: thus, in Nos. 6 and 8, the birth of a deformed infant is regarded as indicating that another monstrous birth will take place in the same house; suggesting hereditary malformations or genetic problems in the family.

Egypt

In ancient Egypt, despite the practical anatomical exercise of mummification, little was learnt about the ear. However, the importance of the ear is illustrated in the so called 'ear tablets' (Figs. 2 and 3).¹³ Especially in Fig. 3, below the auricle, we can see two falcons wearing the double crown of the Kingdoms of Upper and Lower Egypt. Another interesting 'ear tablet' (Fig. 4) illustrates 31 pinnae of different size and shape that may correspond to ears with different degree of hearing.¹³

The Papyrus Ebers that was written in 1500 BC and found in a tomb in Thebes in 1858 states that 'the breath of life enters by the right ear and the breath of death by the left ear'.¹⁴ This strange concept of the ears as avenues of respiration was mentioned some centuries later by the Greek philosopher Alcmaeon, in 580 BC, when he affirmed that goats breathed through their ears.¹⁵

Hebrew

Although the Bible and the Talmud are very useful sources of Medical History, they have surprisingly

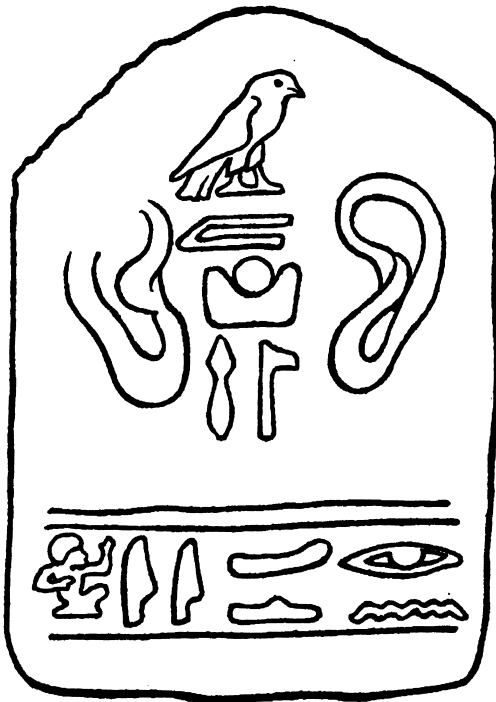


Fig. 2 Ear tablet of Hwv, Sphinx Temple, Giza (copyright permission—Royal Society of Press Ltd).

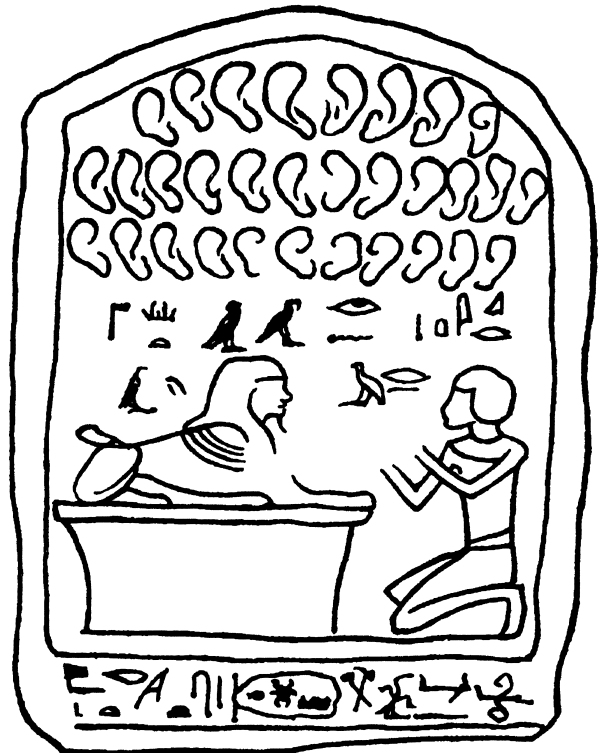


Fig. 4 Ear tablet, Stele of Mer, Sphinx Temple, Giza—showing 31 pinnae of different size and shape that may correspond to ears with different degree of hearing (copyright permission—Royal Society of Press Ltd).

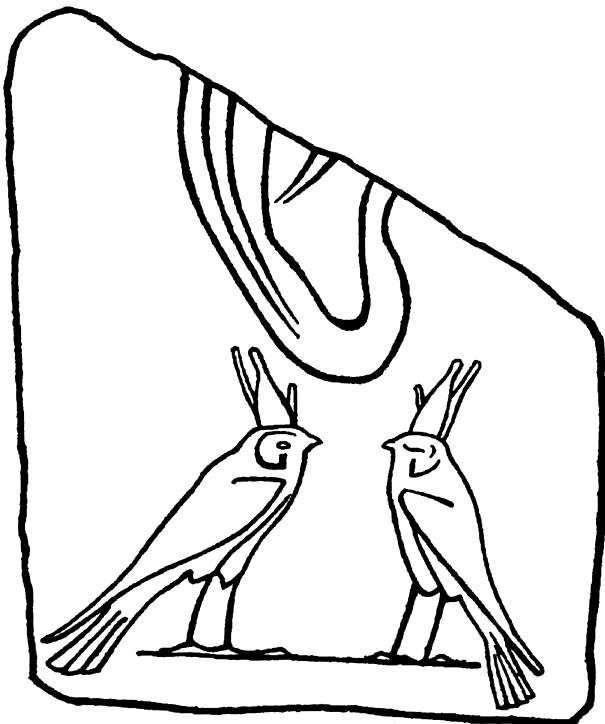


Fig. 3 Ear tablet, Sphinx Temple, Giza—showing an auricle with two falcons wearing the double crown of the Kingdoms of Upper and Lower Egypt (copyright permission—Royal Society of Press Ltd).

very few references to otology. If double ear, pierced ears, small ears, cut off ears and pendulous ears were found in a sacrificial animal, this would render it unsuitable. Moreover, all priests having noticeable malformations of the ears were considered unfit for Temple service.^{14,16,17}

The same concept of the perfect appearance that priests or kings should have, can also be found, centuries later, during the Byzantine empire. According to the Byzantine Imperial theory, only a 'perfect' man could claim the throne, and, therefore, mutilation (including cutting off the ears) was a customary form of punishment in cases involving rebellion, claims to the throne and religious heresy. This method of punishment constituted, as strange as it may sound, a charitable punishment with the purpose of replacing the more severe death penalty.¹⁸

Greek—Roman period

Among other misconceptions, the strange belief that the ear is an organ of generation and how it was preserved though centuries

In the Greek and Roman periods of ancient history,

Pliny wrote that the seat of memory was in the lower part of the ear and Noury stated that the seat of Nemesis, the Goddess of Retribution, was supposed to be behind the right ear.¹⁹ Pythagoras (6th century BC), the great mathematician and philosopher, suggested that hearing was an act directed outward from the soul as an ethereal breeze.²⁰ Plato (427-347 BC) in the *Timaeos* expressed the theory that hearing is a motion extending from the ear and ending in the region of liver. This role of the liver is connected with the idea that hearing affects soul, thinking, feeling, and desire, the main factors of spiritual existence located in the head, heart, and liver.²⁰ Hippocrates believed that section of veins behind the ears interrupted the passage of semen from the head, where it was supposed to be generated, to the genitalia. Perhaps this was the origin of the most interesting belief, the ear serving as an organ of generation. The conception of the Virgin Mary, although symbolic, was supposed to be effected by introduction of the breath of the Holy Ghost into her ear, and that is how it was frequently illustrated by mediaeval artists. This unusual function of the ear can be also found in French writings and theatre plays in medieval or later times. Rebelais described the birth of Gargantua by Gargamelle's left ear and the innocent Agnes in Moliere's *L'Ecole des Femmes* enquired whether children were born by the ear.^{14, 20} These beliefs may be the reason for cutting off the pinnae of thieves in an attempt to make them sterile and thus incapable of propagating their kind.²²

The size/shape of the ear and its connection: old and current beliefs

Even the size and the shape of the pinna have been the centre of other superstitions, particularly in determining the character of the individual. Many of these beliefs are still extant today, although their exact origin is unknown. There have been conflicting beliefs in different times, places or nations; small ears can denote mental ability and generosity, whilst large ears indicate dullness, and pointed ears a bad character.²³ In Boston, USA, large ears were considered the mark of a liar, while small ears indicated truthfulness.²⁴

Other beliefs suggest that the ears, and especially the pinnae and the external ear canals, were thought to have connections with other organs, and treatments applied locally could affect other parts of the body and vice versa. Such beliefs include: the extraction of teeth causes deafness,

deadly poison can be administered through the ear canal (as mentioned in 'Hamlet'), earwigs can creep into the brain by the ear, wearing gold earrings cures weak eyes, and wearing amulets of pig auditory ossicles prevents pain.^{14,15,21}

All these superstitions and beliefs concerning the ear and its malformations illustrate the wide variety and the long history of misconceptions related to children born with congenital malformations of the pinna and the external ear canal. These misconceptions may have led to a conscious or subconscious anxiety and pressure from parents and patients to ENT and plastic surgeons in some cultures to correct the ear malformations in order to avoid psychological and social problems. However, physicians should follow the indications and time-frames for reconstructive surgery or artificial prosthesis in order to avoid disappointments and failures in the management of malformations that have been the centre of significant misconceptions since ancient times.

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