

Human Anomalies in the Most Celebrated Arabic Islamic Medical Books (Part 1)

En Ünlü Arap İslam Medikal Kitaplarındaki İnsan Anomalileri (Bölüm 1)

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ABSTRACT Introduction: Congenital anomalies in human is well known since prehistoric man, but it is believed now that these anomalies are continuously increasing in their incidence on one side and in their differences on the other. **Objective:** To identify the most important congenital anomalies in human, according to what was written in the most important old Arabic medical books during the Arab Islamic civilization era. **Material and Methods:** The historical method was followed in this research, by going back to some important old Arabic medical books, mainly al-Hawi and al-Taqseem Waltashjeer books of Rhazes, al-qanun fi al-tibb book of Avicenna, and al-Tasreef book of Albucasis. Then, a comparison study of these anomalies were done with what is currently known in modern medicine. **Results:** 1- Old Arab physicians knew some congenital anomalies in human, and they talked about in their books. 2- Arab physicians distinguished between two types of hydrocephalus; congenital, which its cause is unknown, and acquired such as resulted from mid-wifery trauma. 3- Arab physicians talked on the treatment of two types of urethral anomalies. 4- Arab physicians did not mention to some anomalies currently known, such as cleft palate. **Conclusion:** Old Arab physicians talked in their books on some congenital anomalies in human, and in some cases they determined their treatment either surgical or non-surgical. But they did not mention to some anomalies well know now.

Keywords: Congenital human anomalies; Razi; Avicenna; Albucasis; Arabic medicine; Islamic medicine

ÖZET Giriş: İnsanın doğuştan gelen anormaliteleri (konjenital) eski çağlardan beri bilinmektedir ancak bu anormalitelerin zamanla düzenli olarak artmakta ve kişiler arasındaki farklılığı da artırmaktadır. **Amaç:** Arap İslam medeniyeti döneminde en önemli eski Arap tıp kitaplarında yazılmış bilgilere göre insanda görülen en önemli konjenital anomalileri belirlemek. **Gereç ve Yöntemler:** Bu araştırmada, tarihî yöntem izlenmiş ve başta Hawazi ve El-Taqseem Waltashjeer'in Rhazes olmak üzere İbn-i Sinan'ın el-kaun el-tibb kitabı ve El-Tasreef'in Albucasis olmak üzere bazı önemli eski Arap tıp kitaplarından yararlanılmıştır ve daha sonar bu anormalilerin karşılaştırması modern tıp kitapları ile yapılmıştır. **Bulgular:** 1- Eski Arap hekimler de insanda bazı doğuştan gelen anormallikleri biliyorlardı ve kitaplarında bu konulardan bahsetmişlerdir. 2- Arap hekimler hidrosefalusun iki tipini tanımlamışlardır: konjenital, nedeni bilinmeyen ve ebelik travmasına bağlı olarak edinilen. 3- Arap hekimler iki tip üretral anomali olduğunu düşünmüşler ve tedavi etmişlerdir. 4- Arap doktorlar yarık damak gibi günümüzde bilinen bazı anormalliklerden bahsetmemişlerdir. **Sonuç:** Eski Arap hekimler kitaplarında bazı doğumsal anomaliler hakkında konuşmuşlar ve bazı vakalarda tedavi yöntemlerini cerrahi veya cerrahi olmayan olarak belirlemişlerdir ancak şu an tedavisini ve sebebini çok iyi bildiğimiz anomalilerden bahsetmemişlerdir.

Anahtar Kelimeler: Konjenital anomaliler; Razi; Avicenna; Albucasis; Arap tıbbi; İslami tıp

The incidence of congenital anomalies in the human body is as old as human on the surface of the Earth, but it is widely believed now that the occurrence of these deformities is steadily increasing in terms of increased occurrence and diversity of those distortions. There is no doubt that the reasons for such an increase from what is known, and most still unknown until now. Perhaps the most known causes are environmental fac-

tors, and radiation which is on top of those factors. It justification research is to highlight the anomalies affecting the human body kept me mentioned in the more celebrated Arabic medical literatures.

The importance of research: as yet, as far as I know, it hasn't been a scientific study documenting such a subject of abnormalities of the human body in the books of Islamic Arab medical heritage, but there is one study I've made under the name: congenital anomalies in Avicenna medicine. In order to take the topic of holistic character, saw that it was necessary to make the most comprehensive such study.

Aim of the research: research aims to demonstrate the role played by some old Arab physicians, and the extent of their contribution in the field of congenital anomalies affecting the human body, and its treatment. As to the second objective of this study is to identify the quality of these deformities, which were known at that time, and the frequency of occurrence of it if the information is available, it can be a simple comparison between what was common at that time, and what is common today, and therefore may reach to know some real causes of congenital anomalies afflicting humanity today.

Research methodology: the historical recovery method were used, by reference to the ancient Arabic medical books. Indeed, I went back to a lot of those books, and many of them have found in repetition, same as previous books reported; for example, Ibn-Hubal al-Baghdadi in his book titled (anthology in medicine), is no different than Avicenna said in his book the al-qanun fi al-tibb, also said Ibn-Zuhor in his book al-Tayseer, is echo to what mentioned before. So, it's all found wise return to four main references: al-Hawi book, and al-Taqseem book of Razius, al-qanun fi al-tibb book of Avicenna, and al-Tasrif book of Albucasis.

I- The causes and classification of congenital malformations: since old times human look to congenital anomalies as a melancholy vision, and it was considered as a result of evil spirits. Some deformities, such as congenital pigmented skin, interpreted as caused by mother wished for things that never get her during pregnancy, so it was considered to

appear on the baby, or because of seeing the mother of some animals like camel and rabbit during pregnancy, the baby comes with cleft palate. But old Arab doctors looking for more scientific vision to these anomalies, and tried to discuss in a manner consistent with medical information that prevailed at that times, consider that health and disease and anomalies are caused by the imbalance between the four humours of the human body; blood, phlegm, yellow and black. When he mentioned the diseases, its causes, and symptoms, in chapter III of the composition: " diseases of the composition is also limited to four genera: diseases of appearance, diseases of amount, diseases of number, and diseases of situation. Diseases of the appearance limited to four types; that of figure: the disease is changing the shape of its natural variability, a scourge in the act as the straight to become deviated, or deviated to be straightening,

and topped off the rotate or rotate the square. Second, tracts, three varieties of it either widens as wekals eye, or as varicose veins, or narrow as the eye puble, or to be obstructed as of liver veins.¹

II- HEAD DEFORMITIES

Hydrocephalus is considered the most birth deformity that occur in the human head. It was known as the water collection at the boys' heads. Albucasis says: "this sickness often presents to boys at birth if the midwife pressed the boy's head roughly. It is also because of unknown defect. And I've never seen this illness in other boys, all of them as soon as I saw him die, so seen leaving work to treat such cases. And I've seen them a boy has his head was filled with water, and the head maximizes every day until the boy couldn't sit on himself for his bone and humidity rise until perishing. This moisture can either collect between skin and bone, either to meet under the bone on the peritoneum, work that was humidity between skin and bone tumor was small, you should make in the middle of the head one transverse incision, and the length of the slit nearly two breadths until the moisture get out.²

It is noted that Albucasis distinguished between the two types of Hydrocephalus: congenital

type, occurs because of unknown defect, and acquired type as caused by birth trauma. Also he distinguished between two types of humidity: including the collection is between skin and bone (which is in fact here is a subcutaneous hematoma, and not Hydrocephalus), and where the collection is between the bone and the peritoneum (which represent hydrocephalus) and its signs is sutures spacing mark. He has dealt with both cases by making incision above the gathering place moisture, then pledge wound ointments until healed.

While we note that Avicenna differentiate between what is now known as hydrocephalus and hematoma under the scalp. In the second case he recommended to extract the hematoma. Avicenna says: "in the boys and others, if in their heads a lot and is driven from the outside to the inside, if it is so, it should not to be treated. If it is small and between the skin and the skull, you should make one transverse incision, but if it was big one make two or three transverse incisions, and emptied it, then pulls and linking and apply some fluid and oil for three days, and then replace the ligament and treated with ointments that needed or make sutures if required."¹

What Rhazes said about this theme is very minimal compared to what written by Albucasis and Avicenna. Rhazes has moved what al-Yahodi said in this issue, saying: "the al-Yahodi says the head could be enlarged and stretch and warp of wind generated thick humidity".³

III- EAR DEFORMITIES:

Ear deformities are summarized in the sole deformity: a congenital ear obstruction. Avicenna says: "that's the embankment idiosyncrasy of membrane creature on the hole. In treatment: either the obstruction or fill in the origin of idiosyncrasy, the deepest is harder treatment, and the superficial obstruction is easier. The deep one should be incised by using a fine instrument, and prevent being healed on what we say."¹

Albucasis mentioned in more details in the treatment. Says: "some children might come out of the mother uterus, and earshot of their ears are not

pierced, and may also show some people plug into the ear injury or meat growth inside, this obstruction may be deep in ear piercing doesn't realize is impaired, and may display outside the hole a bit and realize sight, which shows the deep in the ear and don't know sight is most likely heal dyslexia, which recognizes sight, so should put the patient under the sun ray saw the dam appears, open it by using a fine scalpel."²

Razus mentioned in his book al-Taqseem, that this deformity may be the cause of congenital deaf, and could not to be cured.⁴

This deformity is now known as obstruction of, tube audio, and the reasons for this situation are multiple, and Arab doctors have been summarized by reasons; first, congenital occlusion is currently known cases, where a thick fibrous tissue is made nowhere auditory stream.⁵ The other reason is to be fixed in the course of the hearing, a kind of meat, and is currently known as benign and malignant tumors. Whatever the reason, it is noticeable that they advised surgery to remove the cause.

IV- TONGUE DEFORMITIES

In this area Avicenna talks about two types of deformities: increase the size of the tongue, and the shortage tongue. In the first deformity Avicenna says: "if the tongue was too big and broad, or small such as being spasm, the patient will not be able to speak".¹

Regarding shortage of the tongue, says: "that might jeopardize the connection underneath the tip of the tongue and twinkling, doesn't let the tongue develops into, and may expose for cramping. Either the object because of the short cut the ligament, Rabat treatment by blink slightly. If some bleeding appeared, you can stop it bay adding powder vitriol, and the amount of necessary piece in launching the tongue to turn up the palate and comes out of the mouth".¹

Albucasis talked on the ligament under the tongue which prevents speaking. Says: "this ligament located under the tongue either naturally born human, or have accidentally from a wound which healed already. To treat it, open the mouth

and head in your lap and lift his tongue and then cut that nervous ligament transversely until it is able to free the tongue. If there is some rigidity and some nodules, and this because of old wound, then use the hook and make a transverse incision until the ligament and the nodules to be released. And beware not to be cleaving deep into the flesh, cut an artery there presents hemorrhages, then the patient should rinse the mouth after pieces of rose water or vinegar and cold water, then put sublingual priming of linen supplied fresh every night lest dock again. To treat hemorrhage throw powder, or use an iron fit for it and then fix it with other treatment until healin".²

Rhazes also speaks briefly about Frenum linguae, saying: "If this ligament connects the tip of the tongue we should cut it, for enable talking".³ In al-Taqseem book when talking about stiffening the tongue says: "a shortening of the ligament, it should be cut that ligament and its mark to be glued to the tip of the tongue".⁵

It is known that this common tongue deformity mentioned by old Greece physicians such as Celsus and Paulus. This is currently known as Frenum linguae. And what said by Albucasis, Avicenna, and Rhazes in cutting the tongue ligament is not different from what we do today, except using electrical decision to cut the reins and stop hemorrhage.⁶

Conflict of Interest

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Authorship Contributions

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