



Job van Meekeren (1611–1666) and his descriptions of posterior craniocervical masses in children

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Introduction

Job van Meekeren was a Dutch surgeon practicing in Amsterdam and who performed autopsies on many of his interesting cases. He was a student of Nicolaas Tulp (1593–1674) who referred to him as *chirurgis industrius* [1], and was the first to report the use of a bone xenograft (from a dog) for cranioplasty in a Russian nobleman [2]. He also performed trepanations.

One fascinating case from van Meekeren's *Observationes medico-chirurgicae* describes cases of children with masses at the posterior craniocervical junction (Fig. 1 and Cover). Based on the single figure in the book and his other descriptions, such congenital malformations could represent occipital encephaloceles or high cervical meningoceles. However, the following case description points to the diagnosis of occipital encephalocele:

“...But the neck where the abnormal growth attached was provoked, and the infant began to be unable to see and it was noted that there was fainting. All hope for treatment, or rest, was in vain. Since the site was always exposed, as time lapsed, a fever formed and consumed the patient, causing a painful death.”

For such masses, some of which were described as being “the same size as the head”, van Meekeren says that some surgeons of his day believed that no matter the origin, they should be removed. In this regard, he follows with “...could not be taken without skill” and “...some by no means suggest that the surgery be risked.” Some, however, were treated but conservatively:

“Of the physicians, the surgeons who are familiar with this wanted to remove it, to reduced it...we convinced him to stitch the hard membrane in order to reduce the amount of brain within it.”

Some of the cases, who went untreated, eventually died as exemplified by this case description:

“Our dear child, grew very weak, every day, until death, from the weight of the and due to its size, repeated touching resulted in fever...it finally opened itself and there was the release of an abundance of watery fluid.”

These cases of van Meekeren represent a very early report of masses of the posterior craniocervical junction, and most likely, represent occipital encephaloceles or high cervical meningoceles, i.e., Chiari III malformations [3–5].

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Conclusions

It is the early work of such physicians as van Meekeren on which our current understanding of such pathological entities as described herein is based.

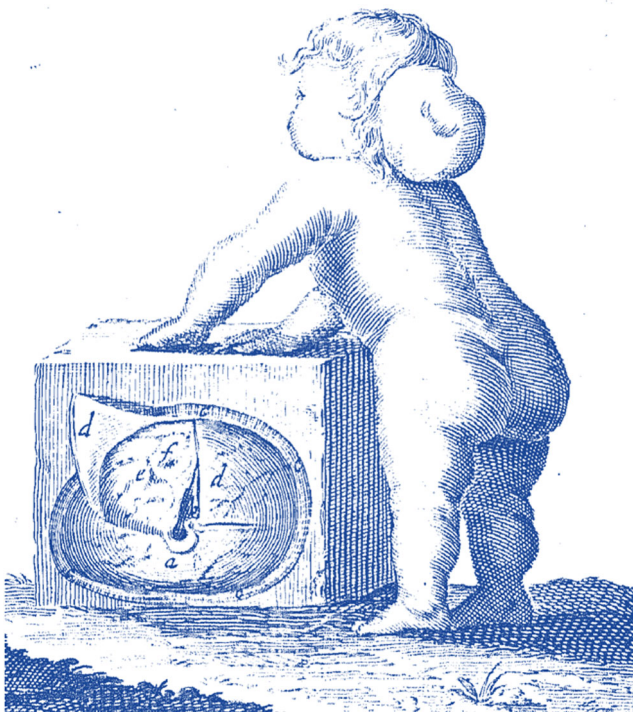


Fig. 1 and Cover Drawing of child with occipital mass from van Meekeren's *Observationes medico-chirurgicae*. Although not clear from the text, the box in the figure might represent the layers observed during surgery/autopsy of the occipital mass

Compliance with ethical standards

Conflict of interest The authors have no conflicts of interest to declare.

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