

77e commémoration of the birthday of Hendrik Van Deventer, 350 years ago.

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Summary

Hendrik van Deventer (1651-1724) was the first man to introduce the idea that good obstetrics was only possible by an adequate understanding of the physiology and pathology of the female reproductive process. In his book Novum Lumen (1701) he described for the first time in obstetric literature the pelvis axis and pelvic assessment. The Van Deventer platypelloid pelvis is still named after him. In short we may consider Van Deventer as the first obstetrician who introduced science in obstetrics. In this respect we honour him.

Résumé

Hendrik van Deventer (1651-1724) fut le premier docteur en médecine à avoir compris que, pour être correcte, la pratique de l'obstétrique doit s'appuyer sur des connaissances solides de la physiologie et de la pathologie de l'appareil génital de la femme et sur des notions approfondies des processus de reproduction et de parturition. Hendrik van Deventer fut également le premier à donner, dans son traité «Novum Lumen» (1701), une description correcte du bassin de la femme et à insister sur la nécessité de l'évaluation clinique de celui-ci. Le bassin platipelloïde (pelvis plana Deventeri) a immortalisé le nom de l'auteur. En un mot, nous considérons Van Deventer comme l'initiateur de l'obstétricie scientifique.

Introduction

The life of Hendrik van Deventer is marked by the years 1651 and 1724 : these dates are rather plain and uninteresting, and only inform us about the period during which he lived, (fig. 1). However, when considering these dates, one will notice that Van Deventer lived during the seventeenth as well as during the eighteenth century, and generally speaking, these two centuries were of great importance to our Dutch history.

There was a particular reason why the seventeenth century was called the Dutch Golden Age: this was also the period during which Van Deventer was raised, educated and spent

the best part of his life. Though the time of expansion and great economic prosperity belonged to the past for the Northern part of the Netherlands after the peace-treaty of Munster in 1648, the Dutch people were still the freight traders of Europe.

There was a lot of money being made by shipping to and from the Baltic by the whalers, and also at the Amsterdam goods and money markets. But this type of business was mainly in the hands of the upper-crust of the population.

This tendency was shown off by the wealth and display of goods of the rich traders. These merchants and manufacturers took pleasure in building beautiful mansions and small palaces along the Amstel and Vecht rivers.



• fig. 1. Hendrik van Deventer. Copper-plate by P. Bouttats after Th. van der Wilt.

Considering cultural life, one could mention many artists who were representative of both the first and second part of the seventeenth century, e.g. the writers Joost van den Vondel and Constantijn Huyghens, or the painters Rembrandt and Jordaens, and even Jacob van Campen and Pieter Post, who are among our best-known architects. Also within the circle of international scientists of the seventeenth century, the so-called 'Low Countries' should not have a sense of inferiority. People like Van Leeuwenhoek (1641-1723), Jan Swammerdam (1637-1680), and Reinier de Graaf (1641-1673) were already famous during their life-time, due to their discoveries and their published works.

To the above-mentioned scientists one could add many professors and highly qualified teachers, belonging to the universities of Leiden, Franeker, Utrecht and Groningen, who guaranteed a most interesting intellectual way of life within the Republic. They attracted many students from most European countries.

On the other hand, the spirit of rationalism, favoured by Rene Descartes and other philosophers, had an excellent influence on our

scientific knowledge. Christiaan Huyghens was of the utmost importance in this development. This digression was meant to give a general idea of the circumstances during which Van Deventer spent his life, and to give a more structural background to the previously mentioned dates of 1651 and 1724. All the same, this overview is of some importance, because it does not seem that Van Deventer's way of life was influenced by developments in the Republic: with one exception, however, that of a specific religion rather well-known during that time. We now know that Van Deventer was an active member of the parish of De Labadie, which had been established by the fanatical clergyman Jean de Labadie.

This dogmatist preached a very strong discipline, that brought about his own downfall in the end. Only the chosen few had received the baptism of the spirits. This interpretation of the «real» church, called 'Parish of the Chosen', made De Labadie compile his own sect, and this sect was pursued by all Jesuits in Europe.

I mention this rather outrageous sect with its supporters, because Van Deventer belonged to and worked with the sect from roughly 1672 up to his first trip to the court of King Christian the Fifth in Denmark, in the year 1689.

His medical profession

By way of his close contact with De Labadie and his followers, Van Deventer became seriously interested in the medical profession. Originally he started off as a goldsmith, which he admitted in his book called *Sickness of the Bones*, published in 1719. «So I went into a Neurenburg shop and bought myself some engraving tools, like the ones used by goldsmiths : some chisels of different shapes, and trusted my abilities of using these instruments as I was capable of doing so during my youth, being quite handy with gold, brass, etc.»

fig. 2. Title page of the first Dutch edition (1701) of Van Deventer's *Manuale Operatien zynde een Nieuw Licht voor Vroed-Meesters en Vroed-Vrouwen*.

Only after being in touch with the De Labadie community, which was residing in Altona in Holstein during 1672, was Van Deventer put on the right track, namely that of his medical career.

In Holstein he received his first tuition from the physician Walter, who happened to be the medical assistant to the parish. Van Deventer is atypical example of someone who learned his profession by watching others, studying without attending a proper university, and got himself thoroughly acquainted with Hippocrates' theory: not just a closet scholar, but a practical man, who learned his trade, and received his knowledge around the bed of the patient.

The De Labadie community kept moving on and, because Van Deventer stayed with the group, he eventually became private physician to this sect.

The parish was self-supporting and kept apart from the locals. In the case of illness, the members only asked advice from their own doctor. This meant that Van Deventer was able to accumulate a great deal of medical know-how. In this case, one should not forget that the complete parish consisted of more than 500 members. During the year of 1694 he was able to obtain his medical degree at the university of Groningen, which meant he was finally allowed to practise medicine outside the parish as well.

The graduation was a turning point in Van Deventer's career. Till 1694 he had acted as a plain medic in the service of the Labadie community, based at the village of Wiewerd in Friesland since 1675 and had made trips to Denmark where his orthopedic knowledge was highly esteemed.

MANUALE OPERATIEK

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After his graduation ceremony, Van Deventer could claim the right to settle down as M.D., at any place of his own choice. He left Friesland in 1694, and took up residence in The Hague and near Voorburg, on the estate 'Sionslust'. Unfortunately, this is also the place where he died, on December 12th, 1724.

His obstetrical career

According to Van Deventer himself, he already was an experienced surgeon when he started his career in 1679 as an obstetrician. As the resident-physician of the parish, he most certainly must have had many experiences as an obstetric surgeon. It must have been his growing interest in gynaecology which in the long run made him choose to specialize in this. Within the framework of this article we want to emphasize the way in which Van Deventer

practised his obstetric career. For this, Van Deventer is still well-known throughout the world.

He also made quite a name for himself as an expert in orthopedic surgery: this is also a direct consequence of his association with the De Labadie community. This group, generally speaking, kept a rather ascetic diet. That meant that many children of the group were suffering from what we now would call vitamin D deficiency, which resulted in malformations of their legs, spines and pelvises. Van Deventer constructed orthopedic aids for these people. These pelvic malfunctions brought on by rickets created severe problems for Van Deventer, particularly with his pregnant patients. Later on we will discuss this matter again.

Van Deventer must have started his work as an obstetrician with the De Labadie group around 1679. As he wrote in 1719 in his book *Further discussions*, etc.: «I have already been delivering babies for roughly forty years». This fact is quite remarkable in itself, and reminds us that Van Deventer must have been the first doctor who actually 'got involved' in natural birth. Traditionally the delivery itself, and everything to go with it, had been a pure female affair, and not a single man had been engaged in it till that time.

Before Van Deventer's time, the mere entrance of a man into the delivery-room had been a bad omen, and only in sheer desperation and after total failure of the midwife to deliver the child normally would an obstetric surgeon be admitted. In these cases, the only thing that the particular doctor could do was to deliver the already dead baby, in order to save the life of the mother.

The first development of practical delivery by men only started in France, at the Hotel-Dieu in Paris, where obstetricians worked side by side with midwives. People like Guillemeau,

Mauriceau, Portal and Peu made their careers in this place both practically and scientifically. Van Deventer did not just rely on what other writers had published on the subject. By sheer self-tuition he formed his own opinion about normal and abnormal deliveries. It is absolutely true to state that Van Deventer was the first physician who realized that the profession of obstetrician had to be based on the female body, physiologically and pathologically, and had to be based on the process of procreation as well. We find this general idea returning in all his written records. Though still limited, such knowledge was a real break-through at that time, particularly about the development of the embryo and the actual physiological process of the delivery.

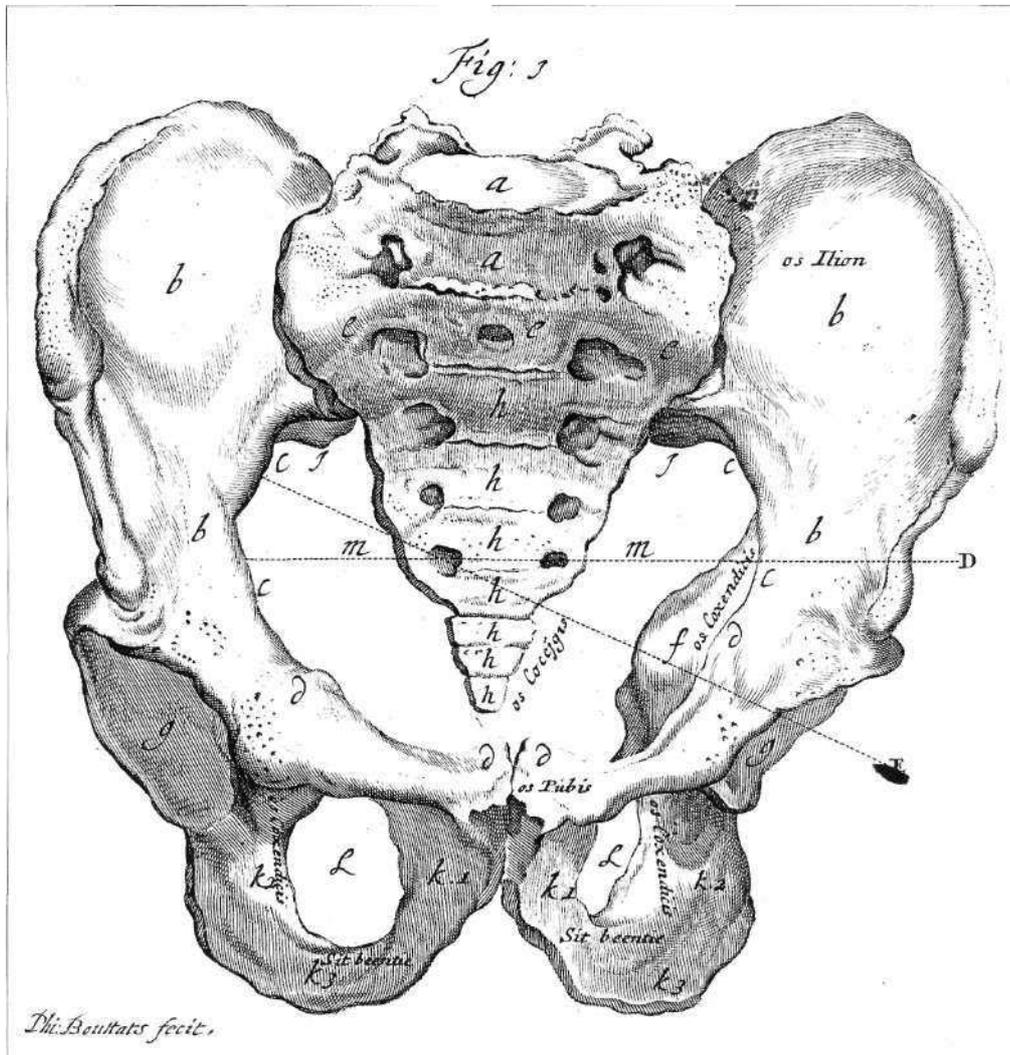
Van Deventer wrote about these experiences in his book, *'The New Light for Obstetricians and Midwives'*, published in 1701, 300 years ago. It was the first scientific publication in the Netherlands linking the items together, (fig. 2).

The female pelvis

In this view, it is obvious that Van Deventer focussed his attention on the female pelvis and its anatomical malfunctions in pregnant women. Together with this, he went deeply into the question as to how much space was needed within the pelvis, in order to enable the foetus to be born in a natural way. There are two explanations why nobody else had gone into this query any further in the past, before the eighteenth century. Both explanations are based on the feeling of sentiment for Hippocrates and this sense of duty was passed on from generation to generation.

The first reason is a confusion between cause and result. There existed a theory which had not yet been proved by observation. The general idea was accepted that the foetus was just born by its own strenuous efforts. However, the question still remained as to why the foetus died in the

fig. 3. The female pelvis, illustration in Van Deventer's 'Nieuw LigV.



case of difficult births, was the birth extremely difficult or even impossible because the child had died? Or, to put it in other words, difficult births were caused by the dead foetus. There seemed no reason whatsoever to blame the bony pelvis for the problem. One can quite easily understand what these sadly mistaken conclusions meant to the prospects for life and the well-being of the child during birth.

The second reason, which was still generally accepted, was Hippocrates' point of view that during delivery the pelvic bones separated from each other automatically; though Andreas Vesalius (1543) had already proved this theory to

be wrong. We have to thank Van Deventer for he really found out what happened to the pelvic bones during delivery. Van Deventer was the first physician who published a manual with accurate drawings, and also gave a description of the normal female pelvis, the «gate of life» which was extremely important to the final outcome, (fig. 3).

According to his beliefs, he wrote the following comments for the obstetricians and midwives: «it is absolutely necessary to have a thorough knowledge of the structure of the pelvis; without this we would just be messing around, either with our brains or with our hands. The final result

would be disastrous, and we would be unable to perform our duties properly». It was still partly accepted by Van Deventer that the pelvic bones separated during birth, and he still could not dismiss the idea entirely. However, he states very clearly: «It does not seem to happen too often, and it is not a necessity; we cannot expect too much from it, and therefore we should not rely on too much help from that side».

Here is the definite proof that Van Deventer is the first to stress the importance of checking the shape and the size of the pelvis of a pregnant woman and estimating the general relationship between the fetus and the pelvic bones before delivery. Today Van Deventer's name is still connected with the tight and narrow pelvis : *pelvis plana Deventeri*. Van Deventer's greatest achievement is that he examined the pelvis carefully and took good notice of any abnormalities concerning the size of the foetal skull and the shape of the pelvis.

On these basic investigations, others have been able to elaborate. Van Deventer gave the great impulse to this newly established science, and others took it from there. Also from his other theories and publications we discover his far advanced ideas to dismiss completely the old notions: «If we are unable to discover new facts, like our predecessors, science definitely will become extinct. Since we do not review our memory by self-study, we tend to forget small items. After a while our art and know-how will deteriorate and become obsolete. We must re-establish our facts and principles, in order to reach a new dimension».

Van Deventer had become world-famous for his critical observations of a typical 17th century problem: the rickety pelvis. He expressed his broad vision of medical science with a statement which remains applicable for us three hundred years later.

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Biography

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