The life and works of *Johannes Schultheiss* (1595–1645), who was the pioneer surgeon

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His life

Johannes Schultheiss (German as *Johann Schulte*, Latinized as *Johannes Scultetus*) was born on October 12, 1595, in Ulm, Germany. When he was 13 years old, both his father and mother died. He worked in various jobs at young age due to financial difficulties. While he was working in Vienna, he met *Adriaan van de Spieghel*, a Belgian physician. *Spieghel* was interested by this intelligent, young man and took him as his servant on his trip to Padua. *Adriaan van de Spieghel* discovered the talents within him. Soon after, *Schultheiss* was a successful student instead of the servant [1]. In 1621, he continued his studies at the University of Padua, Italy, where he received his MD degree from that institution at the age of twenty-six [2]. After studying at the University of Padua, where he received his PhD in medicine and surgery, he became a famous city doctor in Ulm, Germany. *Schultheiss* died due to apoplexia in 1645 at the age of 50 years [3].

Johannes Schultheiss, as well as his very good medical education, also took care of *Spieghel's* patients. *Schultheiss* became “prosector anatomicus” of *Spieghel* and had the opportunity to learn more about human anatomy than other students. It is estimated that he dissected hundreds of human cadaver [1].

For his outstanding achievements, *Johannes Schultheiss* (1595–1645) is considered one of the best surgeons of the seventeenth century. He is remembered in particular for the

large number of bandages that he introduced to surgery, each being adapted to its specific purpose [2].

Armamentarium Chirurgicum

He wrote the book that is named *Armamentarium Chirurgicum*, one of the first surgical books in Latin (Fig. 1). This book was soon translated into German, English, and French [1]. The wide historic impact on the development of modern medicine at the seventeenth and eighteenth century can be measured by the fact that 18 editions were published until 1748 [3]. In this book, he referred to many scientists who came before him, famous historic and contemporary physicians [1]. Also innovations and complex devices developed or modified by *Schultheiss* were shown in this book (Fig. 2) [2]. In addition, surgical techniques used to reduce fractures and dislocations, amputation of limbs, breasts, and other surgical procedures, the surgical treatment of skull fractures and injuries on the pericranium (Fig. 3 and Cover) are shown. Strohl [2] stated that modern surgery is appreciative to this great German surgeon. *Schultheiss* and Jonas [3] stated that the works of *Schultheiss*, especially the achievement and spreading of his textbook *Armamentarium Chirurgicum*, conducted to the admission of surgery as an academic specialty in Northern Europe.

Conclusion

In spite of the difficult conditions, his contribution to medicine cannot be underestimated. For these reasons, he should be appreciated.

Compliance with ethical standards

Conflict of interest The authors declare that there is no conflict of interest.

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ARMAMENTARIUM CHIRURGICUM

BIPARTITUM,

Studioq; & operâ

D. JOANNIS SCULTETI ULMENSIS,

Reipubl. Patriæ Physici ordinarij, reformatum,
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Cum LVI. Tabulis, sive Figuris æneis

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Ut &

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Fig. 1 Title page of *Armamentarium Chirurgicum*

Fig. 2 The illustrations of some surgical instruments in *Armamentarium Chirurgicum*

Fig. 3 and Cover Some techniques used to treat skull fractures and pericranium injuries in *Armamentarium Chirurgicum*

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