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Forum Article

The Medical Enigma of Rembrandt's Bathsheba

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Running Head: Mondor' Thrombophlebitis

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The biblical Bathsheba was a young bride with whom King David became wantonly enamored after seeing her bathing. Rembrandt depicted the nude Bathsheba at her toilet, and holding the king's summons, in his celebrated painting of 1664. Bathsheba is one of only two characters (the other being Eve) regularly depicted nude in Christian art. The picture is curious for the presence of a raised bluish discoloration on Bathsheba's left breast, lateral to the areola (fig. 1).

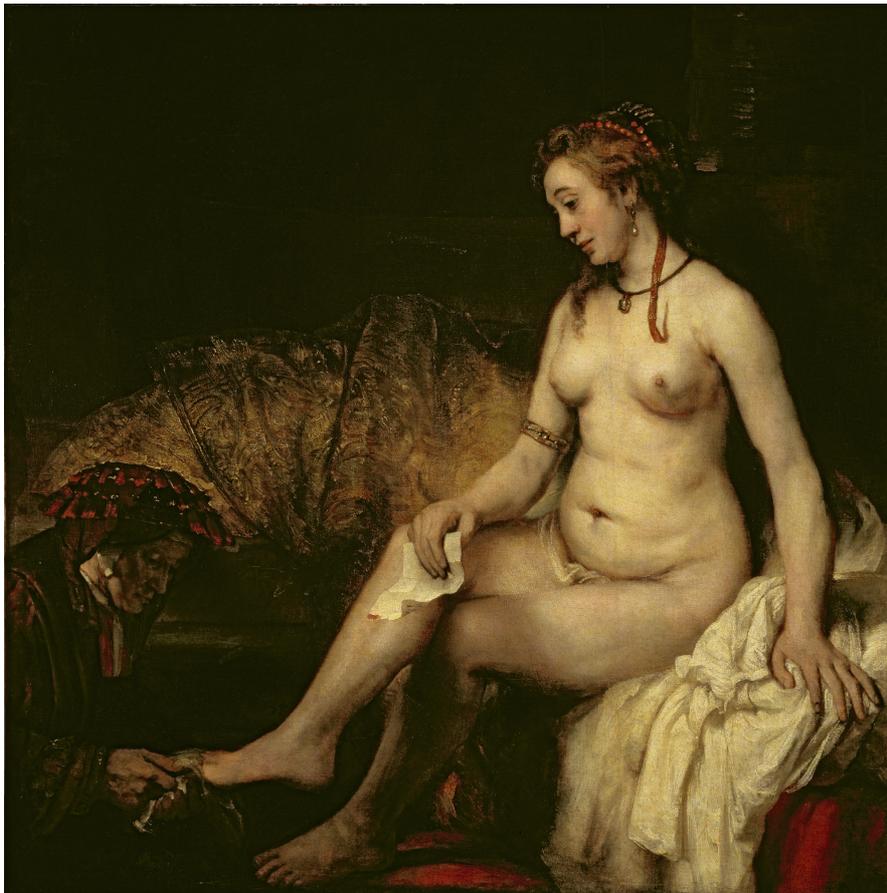


Figure 1. *Bathsheba at her bath as painted by Rembrandt van Rijn in 1654, now at the Louvre, Paris (reprinted, with permission, from the Bridgeman Art Library).*

Rembrandt used his lover Hendrickje Stoffels as model for the painting. Evidently, she had some condition affecting her breast. Braithwaite and Shuggl suggested that the most probable diagnosis was breast cancer, interpreting the skin lesion as *peau d'orange*, a typical sign of breast cancer infiltrating the skin. To further support their hypothesis they drew attention to the expression of

sorrow and resignation on the model's face – a face which Rembrandt had reworked many times – and the short life of Hendrikje, who died nine years after posing for the painting.[1]

Given that Hendrikje was rather young to have developed breast cancer (23 years), Bourne [2] proposed she had tuberculous mastitis – less rare in the 17th century than today – or chronic lactational abscess. Hayakawa et al. [3] also suggested lactational mastitis following miscarriage or premature childbirth without breast feeding.

In 2014 Heijblom et al. [4] reported on the use of Monte Carlo simulations in combination with the retinex theory of colour vision to investigate the bluish discoloration, assuming that Rembrandt accurately rendered the tones he saw and that these tones remain unchanged for 350 years. Their findings indicated that the blue could be perceived by the human eye only if due to a lesion not deeper than 3 mm from the skin surface, while a cancerous lesion or tubercular mastitis would normally be located considerably deeper in the gland. They therefore concluded that the bluish discoloration was unlikely to be due to underlying breast cancer. However, the Authors did not propose any alternative diagnosis.

After reading Heijblom et al's paper the present author began considering alternative diagnoses. It occurred to me that Rembrandt may have depicted thrombophlebitis of a superficial vein, a condition described by Mondor in 1939.[5] Until recently I had only ever encountered two cases of Mondor's disease, the most recent being 20 or so years ago. By coincidence just a few days after my musings, one of our male nurses knocked on my office door and, clearly alarmed, asked me to examine him. I saw on his right breast something closely similar to what is present Bathsheba's left breast (fig. 2).



Figure 2. Left: Photographs of male nurse's right breast showing discoloration with prominent bluish tints. Right: Magnification of the discoloration on Bathsheba's breast, as painted by Rembrandt (reprinted, with permission, from the Bridgeman Art Library).

I palpated a superficial, tender, painful, cord-like induration, typical of Mondor's disease, also visible in the superficial chest wall by stretching the skin (fig. 3). From an anatomical point of view the cord-like induration corresponded to the route of the thoraco-epigastric vein, corroborating the suspect of superficial thrombophlebitis. The thoraco-epigastric vein connects the superficial epigastric vein and the lateral thoracic vein, and therefore drains into both the superior vena cava via the axillary vein and the inferior vena cava via the femoral vein.

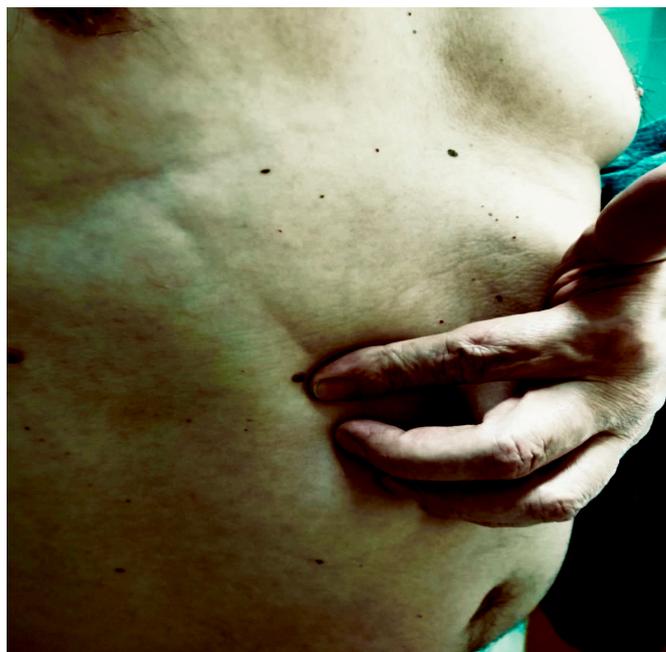


Figure 3. *Pulling the skin downwards reveals the palpated cord corresponding to the thrombosed thoraco-epigastric vein. It runs in continuity with the superficial vein, which causes the breast discoloration.*

Ultrasound confirmed the diagnosis of thrombophlebitis of the thoraco-epigastric vein. In addition, revealed a tributary vein a few millimeters below the skin surface, just at the level of the breast discoloration. The vein was not compressible by the ultrasound probe, and no flow was detected by the means of Doppler PW and color-Doppler modes, clearly indicating an extension of the thoracoepigastric thrombophlebitis into a more superficial tributary (fig. 4).

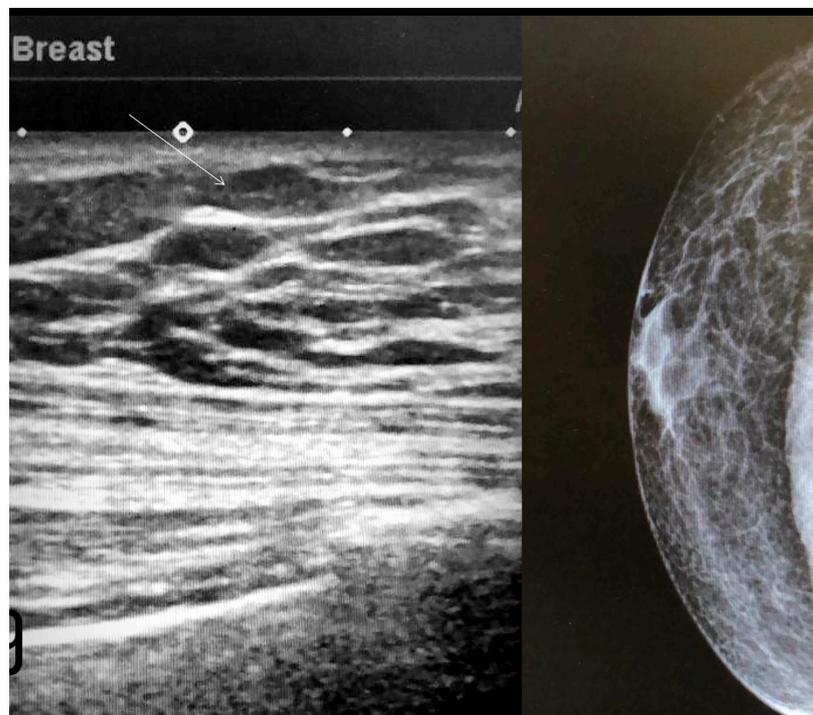


Figure 4. *Left: high resolution ultrasound shows an elliptical vein (arrow) at the level of the skin discoloration running just 2-3 mm under the skin. The vein was not compressible due to the thrombotic process. Each horizontal scale bar is 1 cm. Right: right mammography negative for gland diseases.*

According to the Heijblom et al. investigation such a vein, running at a depth of 2-3 mm, can be perceived by the human retina as a bluish discoloration. Finally, mammography performed because Mondor's disease may be associated with breast cancer, [6] was negative both for cancer and mastitis (fig. 4).

Based on these comparative findings, I propose that Rembrandt depicted Mondor's disease in his lover's breast.

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