

Differential diagnosis of the finger swelling on Pythagoras in the “School of Athens” (1509–1511) by Raphael (1483–1520)

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The 1509 High Renaissance painting of the School of Athens by Raphael (Raffaello Sanzio da Urbino) (Fig. 1c) is lauded as one of the greatest artistic works of mankind depicting luminary philosophers and mathematicians from the classical era.

On studying the painting and its original cartoon (Fig. 1a, b), I note that the ageing figure of Pythagoras in the left lower corner has a noticeable swelling on his right index finger at the proximal interphalangeal (PIP) joint as he applies it to his writing utensil. This may correspond with the clinical sign of a Bouchard's node. The contralateral hand of the same individual also demonstrates some PIP swelling and may represent bilateral disease.

Pythagoras likely died in his eight decade from unknown causes during a conflict. Whilst he may have suffered from osteoarthritis and, therefore, Bouchard's nodes, the depiction

of this sign is more likely from underlying osteoarthritis in an elderly male model on whom Raphael based his Pythagoras image.

The differential diagnosis for PIP joint swellings here is Garrod's node (knuckle pads), rheumatoid nodules, tumors (such as neurofibromas, or giant cell tumor of the tendons sheaths), gouty tophi, synovial cysts or even soft tissue retained foreign bodies.

Of note the depiction of PIP swelling in this painting is over three centuries before the description of Bouchard's node and four centuries before the description of Garrod's node; rendering the painting the earliest depiction of swollen PIP disease. This painting, therefore, re-enforces the persistent nature of these chronic rheumatologic diseases on society whilst also offering a new insight into the origins of one of the world's most prominent paintings by a genius artist.

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