ISSN: 2584-0355
DOI: doi.org/10.51219/MCCRJ/Giulio-Fanti/458

URF PUBLISHERS
connect with research world

Medical & Clinical Case Reports Journal

https://urfpublishers.com/journal/case-reports

Vol: 4 & Iss: 2

Commentary

Commentary on "Holy Shroud in Turin: Bloodstains on the Neck's Nape and Possible Traces of Myrrh"

Giulio Fanti[1]* and Theodora A. Pappas[2]

[1]Department of Industrial Engineering, University of Padua, via Venezia 1, 35131 Padua, Italy

[2]Attorney at Law, Member of Shroud-Science Group 1, USA

Citation: Fanti G, Pappas TA. Commentary on "Holy Shroud in Turin: Bloodstains on the Neck's Nape and Possible Traces of Myrrh". *Medi Clin Case Rep J* 2026;4(2):1667-1670. DOI: doi.org/10.51219/MCCRJ/Giulio-Fanti/458

Received: 26 March, 2026; **Accepted:** 03 April, 2026; **Published:** 06 April, 2026

***Corresponding author:** Giulio Fanti, Department of Industrial Engineering, University of Padua, via Venezia 1, 35131 Padua, Italy.

Premise

The paper entitled "*Holy Shroud in Turin: Bloodstains on the Neck's Nape and Possible Traces of Myrrh,*" that was recently published in this Journal, was presented by the first author of this Commentary to the Shroud Science Group 1 (SSG1) and this opened a discussion about this paper.

Theodora ("Teddi") Pappas of SSG1 (TP) provided the first author with the following interesting discussion points which are reported below and commented on by Giulio Fanti (GF).

Point #1

TP. Why was synthetic hair used and not human hair? I ask this, because synthetic hair is typically non-porous and human hair is porous (although differing degrees of naturally occurring oil on hair or oil applied to hair, will make it less porous.) So, I wonder whether or not the porosity could impact the outcome of your experiment? Perhaps, the blood would slide off of the hair in a different way with synthetic hair? The other thing is that real blood was not used. Regarding the water-diluted vinyl glue/paint that was used, can this really mimic the properties of blood in, at least, a state of semi-coagulation?

GF. Human hair and blood might, at first glance, seem preferable to the reader over the synthetic components used in the paper and, therefore, might appear capable of providing more credible results than those obtained.

However, the synthetic components were chosen precisely to reproduce the characteristics of interest for experimental analysis without adding features that might, at first glance, seem more credible but, upon closer examination, could, also, be misleading.

Indeed, if one wanted to reproduce all the physical characteristics of the wrapping under consideration, it would not only be important to use human hair, but also to define in advance the degree of moisture of that hair mixed with sweat and probably also with substances that inhibit decay such as oily mixtures of aloe and myrrh.

Moreover, it would not be enough to use generic human blood; it would be necessary to determine whether that blood was antemortem or postmortem and whether it corresponded to the highly pathological conditions that Jesus' blood would have exhibited.

In this preliminary study (which can obviously be expanded) which is the subject of the paper under discussion, the aim was to highlight the result of a fluid with a density comparable to that hypothesized for blood passing through a set of thin cylindrical elements such as hair.

Thus, the semi-coagulated state, which should have been previously better studied and quantified, was simulated with a liquid characterized by a predefined fluidity assumed to be quite similar to that of blood flowing from a cadaver.

To further detail this condition, it would have been necessary to simulate experiments with liquids of different fluidities, which would have involved different imaging speeds but which, apart from the capillary effect, would not have significantly altered the obtained result. However, this was outside the primary scope of this work, which, for example, allowed us to rule out the possibility that simple fluids posed vertically could explain the traces under analysis.

Point #2

TP. Do you think that those shapes that I have highlighted in yellow and pink (reported in **Figure 1**) are, also, leaves? While I used to be agnostic about whether or not there are images of leaves on the Holy Shroud, now I think that there is a strong likelihood that they are there (especially in light of the particular images of leaves that you provide in your paper for comparison.) I know, of course, that there will be the naysayers who will (rather predictably) respond with either: (1) "this is just another case of, 'I think I see,'" or (2) "this is just pareidolia." However, if there is subtle evidence of something that is, especially, located in an area that it would, logically, be, then my reply is: "I 'think I see' something, because it is, quite likely, actually there." If one were to "think that they see" leaves in the area of the side (lance) wound (somewhere that leaves would be quite unlikely to be), then heightened skepticism about what someone "thinks they see" is fair. For example, thinking that one sees an elephant from a distance at a circus is far more likely to be True than seeing a cloud in the sky that very loosely resembles an elephant. Context is everything. It is important that we use our critical thinking to determine when pareidolia might fairly explain what one "thinks one sees," and when it might not.

Figure 1: Images of possible additional leaves as noticed and highlighted by TP in the two photos below the original photo of the nape.

GF. I have presented only one example of the many possible images of leaves that could be recognized by analyzing the various bloodstains in detail.

Several scholars in the past have identified the presence of leaves from different plant species[1-3], but in the paper I chose to present only two typical examples. In fact, one must also consider the possibility that pareidolia may lead to recognizing an excess of such traces. I agree, however, that the traces you highlighted could be real plant imprints.

TP. While there have been some instances of alleged findings of words or objects on the Holy Shroud that might, indeed, be due to pareidolia, I find that there has been an unreasonable proclivity for many people to think that just about every interesting observation of something that is indicative of authenticity and indicative of features that no artist would have dreamt of adding is pareidolia.

Why should we deny seeing evidence of something that, quite likely and quite reasonably, exists and is in places where it should exist? This seems nonsensical to me. The Crown of Thorns, likely, had leaves on it. The leaves would have, quite likely, stuck to the blood in Jesus' hair. Why would it surprise us that these leaves would block the seepage of the transfer of blood from Jesus' hair on His head to the linen cloth?

GF. I fully agree with you and would add that the aforementioned "*unreasonable proclivity for many people*" to dismiss certain important findings regarding this Relic as pareidolia is a means used by detractors of its authenticity to achieve their goal.

Point #3

TP. Are these leaf-shaped areas in question the straw-yellow color of the body images on the Holy Shroud or are they the color of the non-image area? If these areas are either provably (or at least consistent with) non-image areas, this would indicate that objects such as leaves, flowers or berries acted as a barrier (to one extent or another) to the blood staining the cloth underneath, yes?

GF. Interesting observation. Not all areas affected by possible leaf images show the same coloration, but most of them display a straw-yellow color that is less intense than the body image, suggesting a partial masking effect on the imaging.

For example, the leftmost imprint shown (in pink) in **(Figure 1)** on the bottom shows an almost complete lack of body image coloration, suggesting a more pronounced masking effect.

However, it should be borne in mind that, under the hypothesis of body image formation by Corona Discharge [4] that I proposed, there is no complete masking of interposed objects because their effect depends on the dielectric properties of the material.

Point #4

TP. I want to note with interest that with the result from the third test in Figure 9, the top left portion of the leaf shows that the paint seeped underneath the leaf.

However, with what seems to be a leaf in the top right quadrant of Figure 5, the outline of the leaf seems perfect—with no blood having seeped underneath it. Furthermore, what seems interesting to me is that the aforementioned leaf is not surrounded by blood. What is the area that surrounds it? The straw-yellow, body image color or the color of the cloth in non-image areas?

GF. This is also an important observation that highlights the correctness of your observation in Point 1. As I already wrote, in

the published work it was of primary importance to analyze the general appearance of the bloodstains in correspondence with the nape of the neck without going into the smallest details.

You, however, who went into greater detail than the scope of the paper, highlighted a discrepancy between the results of the experiments and what we directly observe on the Holy Shroud. The fact that the paint partially seeped underneath the leaf is very probably the demonstration that the fluid to be used on that occasion should have been slightly less fluid.

With regard to the fact that the leaf in the top right quadrant of Figure 5 seems to present an almost perfect outline with no blood having seeped underneath it, it must be explained as follows. As I wrote in the paper in question, two different types of bloodstains are evident: one more pronounced, probably due to post-mortem blood that flowed out when the Body of Jesus was in the sepulcher, the other less pronounced, probably due to blood that had flowed out earlier and was, therefore, drier.

The imprint of the hypothetical leaf in question, if you observe carefully, is surrounded on the left by more evident blood, while on the right by less pronounced blood that therefore transferred in smaller quantity onto the linen of the Holy Shroud because more dried.

Point #5

TP. I checked to see if the immature Rhamnus lycioides plants bear fruit and I read that they can. Additionally, I checked whether when the Rhamnus lycioides has fruit if it has thorns and I read that, yes, it does.

I am not certain, however if it is Rhamnus lycioides or Ziziphus spina-Christi. Weren't both detected (in terms of pollen) on the Holy Shroud? Perhaps, both are on it? As for the leaf shape, it seems to me that both Rhamnus lycioides *and* Ziziphus spina-Christi *both* match the appearance of that negative spaced area on the nape of the neck.

GF. I know that some scholars consider the possibility that the crown of thorns was made from the Ziziphus spinal-Christi plant rather than the Rhamnus Lycioides one, but the following information clearly makes me lean toward the latter hypothesis.

Speaking directly with Professor Avinoam Danin, a botanist at the Hebrew University of Jerusalem, about the question of the crown of thorns, he clearly told me that only the Rhamnus lycioides plant is present in Jerusalem and therefore the crown of thorns must have been made from this plant.

I have analyzed several relics of alleged thorns from the Crown of Jesus here in Italy and the most reliable ones (some of which have historical documentation) are precisely those of Rhamnus Lycioides. Furthermore, I know that some thorns from the Crown of Jesus are miraculous, like the one from Andria (https://www.diocesiandria.org/reliquia-della-sacra-spina/) and these are precisely Rhamnus Lycioides.

We know that Jesus was voluntarily condemned to endure what was considered to be the most ignominious and drawn-out form of execution. After almost 30 years of studies on this Relic, also assisted by expert physicians, I am convinced that that was the greatest and most prolonged possible pain inflicted on Jesus Christ for us men and for our salvation, without this causing a quick death.

Regardless of the rest, if I had to choose a crown of thorns from Rhamnus lycioides or Ziziphus spina-Christi, I would choose the former for the following reason. Unlike the thorns of Ziziphus spina-Christi, those of Rhamnus lycioides have a reddish tip because a special stinging substance is applied to it, which increases the pain caused by the thorn's prick.

Point #6

TP. With regard to possible leaves on the Crown of Thorns, it seems that the blood would have caused many of the leaves to, likely, remain stuck in Jesus' hair when the Crown was removed. This seems more likely to me to be what we are seeing (as opposed to leaves being placed behind Jesus' head which would be on top of the portion of the cloth which has Jesus' dorsal image on it.)

GF. Yes, I agree with you. It seems plausible to me to think that the branches of the crown of thorns were rich in leaves during the Easter period in April, when nature had just awakened. It is, also, plausible that Jesus' blood coagulated either partially or completely on some leaves trapped in the hair. It is, therefore, easy to think that when the crown of thorns was removed from Jesus' head, some leaves remained entangled among them.

While one might think that, perhaps, some leaves were removed from the part of the hair corresponding to the frontal image out of respect, several leaves were left where they were in correspondence with the dorsal image of the head, because they were less visible.

Point #7

TP. What would be the rationale to someone's putting myrrh only in the area behind Jesus' head? If the reason is for respect and preservation, it would seem that it would be the area of Jesus' face that someone would want to protect. And, why preserve just the back portion of the head? If one is using myrrh as a preservative, why not put this myrrh over Jesus' entire body? Yet, we know that the bloodstains in the other areas of the frontal and dorsal sides of the Holy Shroud do not have the peculiar features to them which are noticeable in the head and neck area of the dorsal image.

GF. We know that it is very likely that the Body of Jesus was buried on a bed of powder (probably also of myrrh) placed between the stone of the sepulcher and the first half of the Holy Shroud corresponding to the dorsal image (as I interpret from reading Psalm 21:16 or 22:16, traditionally attributed to David, it is famous for its extraordinary prefiguration of Christ's Passion. Indeed, it is the Psalm that begins with the words "*My God, my God, why have you forsaken me*?").

The result shown in Fig. 13 of Ref. [5] is in favor of this hypothesis too. There we observe that the numerical analysis detected a non-flat configuration of the first half of the Holy Shroud, suggesting a soft bed deformed by the weight of the human body. So, the presence of by powders on it, probably also of myrrh cannot be excluded.

We, also, know that the burial on Good Friday was partial and hasty, because the evening of the Sabbath was approaching, thus a forced rest for the Jews. Indeed, on Easter Sunday the women went to the sepulcher to complete the burial operations, but they found it empty. Probably the Body of Jesus was also anointed with an oily mixture of aloe and myrrh to better preserve the corpse until the following Sunday[6].

It is not unlikely that one of those present thought of further quickly sprinkling Jesus' head with some granules of myrrh before it was covered by the second half of the Holy Shroud and that, as a result of gravity, these granules accumulated on the lower part of the head among the hair near the nape of the neck.

Here is a plausible explanation for the fact that the bloodstains on the nape show the presence of probable myrrh granules, but not those of the face **(Figure 2)**.

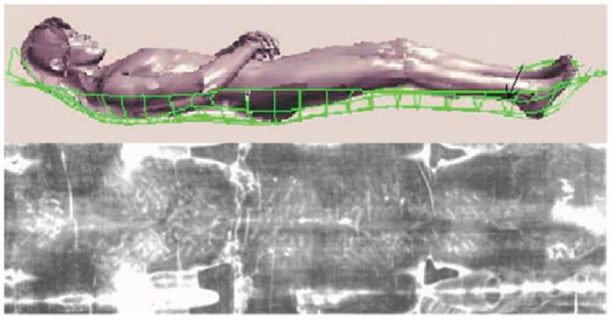

Figure 2: Bottom, dorsal image of the Holy Shroud. Top, reconstruction of a digital manikin representing Jesus's position, endowed with cadaverous rigidity, upright on the cross [6]. It is interesting to observe the arrangement of this part of the Holy Shroud, represented by rectangular finite elements, on the horizontal stone. Its configuration, partially enveloping the manikin, is not flat as one might expect and, therefore, suggests a soft support.

References

1. Danin A. Pressed flowers, where did the Shroud of Turin originate? A botanical quest. Eretz Magazine 1997;55:35-37.
2. Danin A, Whanger A, Baruch U, Whanger M. Flora of the Shroud of Turin. St. Louis, Missouri. Missouri Botanical Garden Press 1999.
3. Oswald S, Tuch D, Pustet VF. Regensburg. Deutschland 1987.
4. Fanti G. Can Corona Discharge explain the body image formation of the Turin Shroud? J Imaging Science Technol 2010;54(2).
5. Fanti G, Basso R, Bianchini G. Turin Shroud: Compatibility Between a Digitized Body Image and a Computerized Anthropomorphous Manikin, J. Imaging Science and Technology® 2010;54(5):050503-050503-8.
6. Fanti G. Shroud of Turin: What Happened to Jesus Christ's Human Body after Death? J Biomed Res Environ Sci 2024;5(10):1278-1287.