

## Doctor, Did You Put a Mesh on Me That Is No Longer Recommended?

### To the Editor:

We read with great interest the randomized controlled trial by Burgmans et al,<sup>1</sup> exploring the role of the lightweight meshes in laparoscopic surgery. We congratulate the authors for their study. We agree with their results, which are the same that we see in our daily practice. In view of the results, we are very concerned about the current reality.

It is surprising the amount of meshes that have appeared and disappeared over the past 30 years. However, nothing new has arisen: all are derivatives from polymers that have been used for 60 years, such as polypropylene, polyester, or Polytetrafluoroethylene (PTFE-e).

According to my understanding, this is due to 2 factors: first, the emergence of laparoscopic surgery and the need to place intraperitoneal meshes with a tissue-separating barrier; and second, the development of light meshes aiming to leave less prosthetic material.

Now, have these new meshes improved the results? Let's see . . .

Few surgeons remember that, until 1995, there was a heavyweight polypropylene mesh (Prolene), which was replaced by the one that is currently used, that although it is considered heavy, it is somewhat lighter than the previous one. We used the primitive heavy mesh for many years, and, although we preferred it, this was not marketed anymore and we had no other choice.

In 1997, "Vipro I" emerged, and, a year later, "Vipro II." Both were withdrawn from the market 2 years later without a clear explanation. The disappearance of both meshes gave place to the rise of another new light mesh called "Ultrapro."

During those years, PTFE-e mesh emerged. Readers will surely remember it as the ideal mesh due to its antiadhesive properties suitable for intraperitoneal positioning. The number of publications highlighting good results was overwhelming.<sup>2-4</sup> However, due to multiple complications, today it is no longer recommended.

In 2005, biological meshes were introduced. Once again, the medical literature was flooded with articles highlighting the advantages.<sup>5,6</sup> Today, as was to be expected, these are no longer recommended.

This year, and after 4 years of permanence, the Physiomesh, with intestinal protection and designed to be used during laparoscopic surgery, was withdrawn from the market due to its poor results.

All double-layered meshes, with intestinal protection or antiadhesive properties, are also controversial for not being used as antiadhesive, as promoted.

It appears that the Ultrapro mesh, described as an ideal mesh for use in both clean-contaminated and contaminated surgeries, due to its high rate of recurrence, would be "evolving" towards a heavier one.

We are facing a very complex situation in which the new meshes are being tested in our patients, and, if the results are not as expected, these new products will either mutate or be withdrawn from the market.

This results in an increase in recurrences, complications, and cost. I cannot recall of any new mesh that was cheaper than the previous one.

I would like to know, what would a patient feel if he found out that the mesh that caused his recurrence was removed from the market? The patient could ask, "Doctor, did you put on me a mesh that is no longer produced? Why?"

It is important to note that when a new mesh appears, many articles are published highlighting its virtues. These have a lot of impact and induce inexperienced colleagues to use the product. Still, when the mesh fails, the authors do not explain why with the same enthusiasm.

I think the meshes are released in the market without being seriously tested, and our patients turn out to be the test benches. We are performing on them prospective trials for the industry.

It is important to acknowledge that this is not only the responsibility of the industry, because behind every project that initiates a company, there are doctors who support and encourage the modifications.

This is a serious issue that concerns us all and we should find the mechanism to ensure that this does not continue.

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