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Caution in Usage of Synthetic Mesh in Repair of Incisional Hernia

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Dear Editor,

Variety of mesh materials are available, for treatment of ventral hernia repair, that can be selected by surgeons. Three main types of prosthetic mesh are used for repair of abdominal hernias (1-4).

These types are:

1- Synthetic mesh, such as polypropylene (pp) or poly ester with vigorous tissue ingrowth and high tensile strength.

2- Biologic mesh is a collagen based human, borine or porcine scaffold (4, 5). This type of mesh is used in the setting of contaminated or infected surgical incisions; and can be implanted intra or extra-peritoneal position.

3- Composite, or barrier–coated is a dual sided prosthetic having a visceral surface that repels tissue in growth and parietal side to primate a strong repair(4). The visceral side decreases adhesive formation. Synthetic mesh such as polyester are appropriate durable materials for extra peritoneal placement(4-6). And if we used intraperitonealy could develop sever adhesions to the bowel and causes enterocutaneous fistula (2, 7). This phenomena is confirmed by many studies. Even mesh related fistula or their complications have seen in these patients who were treated using composite dual sided prosthetic meshes (2, 3).

In the study done by Hosseini et al. (8) nylon type mesh is used, which is in 1st group and should not be used intra peritonealy. How the author did not see any complication is questionable (8). In underlay method it is better to put the mesh on the peritoneal layer, beneath the transversalis fascia to prevent mesh complications such as bowel fistula (3-5). It may be due to short follow up time. But their using method could be useful in patients with ventral hernia and patients with thin or distracted fascia. Because can anchor the appropriating stitches in two sided implanted mesh.

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