

TAILOR-MADE MESH FOR PELVIC ORGAN PROLAPSED PATIENTS IS BETTER THAN READY-MADE UNIFORM MESH.

Hypothesis / aims of study

Tension-free vaginal mesh (TVM) surgery is a common and minimally invasive procedure. (1)(2)(3) Since commercial kits are not readily available in Japan, we have planned custom-made mesh by information of each patient before every TVM surgery. Well-designed, tailor-made mesh and good technical operation result in a better clinical course.

The aim of this study was to determine methods to design mesh for individual patients with pelvic organ prolapsed. We also investigated the correlations among mesh size and height, weight, and body mass index (BMI).

Study design, materials and methods

Before the operation, we obtained a KUB (abdominal X-ray). Three factors were measured from the X-ray: the first was the distance between the bilateral ischial spine, the second was the distance between the obturator foramen, and the third was the length of the arcus tendineus fascia pelvis (ATFP). Since the ischial spine is located in a more posterior position than the symphysis of the pubic bone, the actual length of the ATFP is slightly longer than that determined in the X-ray.

A total of 56 female patients who have undergone TVM surgery in our institution between January 2009 and July 2011 were consecutively enrolled. The correlations among the bilateral ischial spine distance, obturator foramen distance, ATFP length, height, weight, and BMI were assessed using the Pearson correlation coefficient. We used conventional software (Excel) and regarded p values <0.05 as statistically significant.

Results

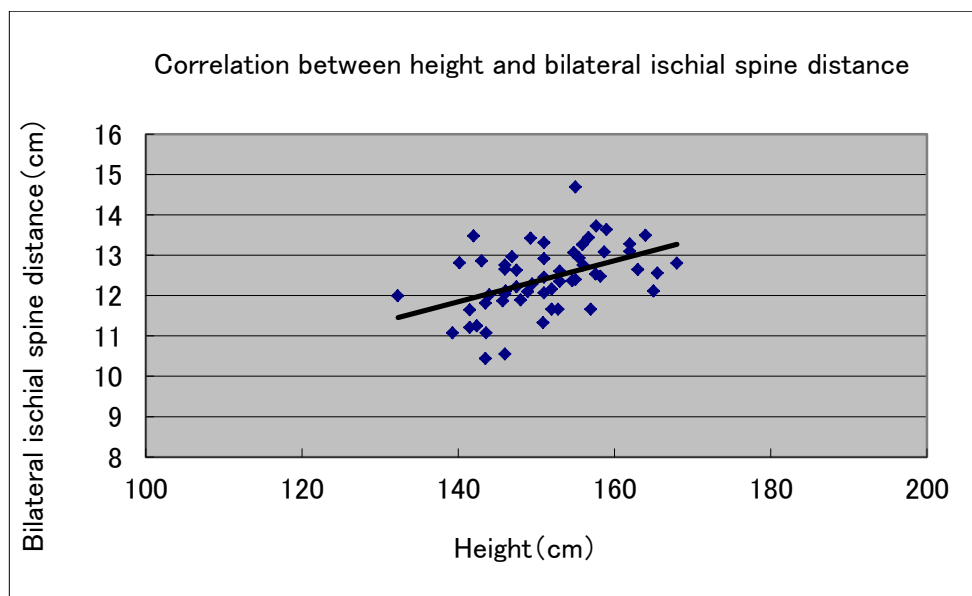
Height was correlated with both the bilateral ischial spine and obturator foramen distance ($r=0.4662$, $p=0.0003$ and $r=0.4186$, $p=0.0013$, respectively). Weight was also correlated with both the bilateral ischial spine and obturator foramen distance ($r=0.3898$, $p=0.003$ and $r=0.3016$, $p=0.0239$, respectively). The bilateral ischial spine distance was correlated with the obturator foramen distance ($r=0.4725$, $p=0.0002$). The length of the ATFP was not correlated with either the bilateral ischial spine distance or the obturator foramen distance. BMI was not correlated with any of these three parameters.

Interpretation of results

Although the three factors described above are necessary to design a mesh for individual patients, the bilateral ischial spine and obturator foramen distance correlated with the height of the patient. On the other hand, since the length of ATFP differs in each patient and is not correlated with height, we should consider this length when we design the mesh.

Concluding message

Well-designed, tailor-made mesh will fit each pelvic organ prolapsed patient more properly than ready-made uniform.



References

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Disclosures

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