RECONSTRUÇÃO DE PAREDE ABDOMINAL COM TELA DE PROLENE

(Em uso duplo de músculo) (Uso tubular de músculo)

Abdominal wall reconstruction with prolene mesh

(For rectus abdominis myocutaneous flap donor defect)

José César{1}
Jaques Camargo{1}
Chico R. Busato{1}
Walter E. Osvaldo{1}
João Prates{1}

SUMMARY

The use the rectus abdominis muscle flag leaves a potential site for development of bulging or herniation through an area below the arcuate line of Douglas, where the posterior rectus sheath is absent.

The authors present a study of thirteen cases submitted to reconstruction of the above deformity, by placing prolene mesh under the approximated muscle complex to protect the abdominal wall.

The results obtained have been gratifying leading the authors to adopt this procedure as routine for the closure of the deformities caused by the removal of R.A.M. on the inferior abdomen, below the Douglas arcuate line.

UNTERMS: rectus abdominis muscle; abdominoplasty; abdominoplasty; defect; prolene mesh.

RESUMO

A retirada do músculo reto abdominal em oratórios livres ou pediculados pode produzir um defeito na parede abdominal inferior, que provavelmente é capaz de originar um abaulamento ou herniação.

Os autores apresentam um estudo de treze casos submetidos à reconstrução deste defeito, com tela de prolene colocada em baixo do plano muscular aproximado, direcionada a este propósito.

Os resultados obtidos têm sido gratificantes, levando os autores a adotar este procedimento como rotina no fechamento dos defeitos produzidos pela retirada do M.R.A. no abdome inferior, abaixo da arcada de Douglas.

UNTERMS: músculo reto abdominal; parede abdominal inferior; defeito; tela de prolene.
The utilization of the rectus abdominis muscle (R.A.M.) in reconstructive surgery has been more and more employed. As the procedures using the R.A.M. flap evolved, there was a natural worry with the anatomical and physiological integrity of its donor area, the abdomen wall.

In this study, we try to show the technique we use in our Service for the treatment of the abdominal wall defect after the utilization of the R.A.M. as a flap, as a pedicled myocutaneous flap or as a free muscle flap.

Fig. 1 - Defect of the abdominal wall, marking up the arcuate line of Douglas.

Abdominal defect, showing the arcuate line of Douglas.

Fig. 2 - Plane of dissection in order to separate the peritoneum, base of the rectus abdominis muscle and the parietal peritoneum.

Plane of the parietal wall over the peritoneum and under the muscle-aponeurosis complex.

Fig. 3 - Rectus abdominis fascia, marking the defect of the parietal peritoneum.

Rectus abdominis muscle flap raised. Note the weakening of the abdominal wall.

Fig. 4 - Complete muscle-aponeurosis, muscle and fascia with a 5.0 silk.

Muscle-aponeurosis complex, where the mesh will be located in.

PATIENTES E MÉTODOS

This work was developed at the 38º Enfermaria da Santa Casa da Misericórdia of the Rio de Janeiro's and the Clinica
PATIENTS AND METHODS

This study was done at the 50th Infantry of the Santa Casa de Misericordia of Rio de Janeiro General Hospital and at the Ino Pigay Clinic, during the period between July 1982 and July 1985.

Only the cases with good postoperative evolution were considered in this study. Those cases with skin necrosis or other local or systemic complications that could interfere with the evaluation of the results, were excluded. Also, only the cases of free or pedicled flaps that showed a satisfactory result at the end of the follow-up were included in this study. Considering these factors, we followed eighteen cases of muscle and muscle cutaneous flaps of the.

Fig 5 - Torniquete com pontos de celebrazione no complexo miocutaneomuscular.

Proper skin incision in the muscle-skin-muscle complex.

Fig 6 - Torniquete no complexo miocutaneomuscular.

Proper skin incision in the muscle-skin-muscle complex.

Fig 7 - Reversão do complexo miocutaneomuscular sobre a área.

Closure of the muscle-skin-muscle complex over the area.

Fig 8A - Paciente após três meses de reconstrução simultânea com músculo extensor da mão e coluna.

Patient after three months of simultaneous reconstruction with extensor muscle and column.
R.A.M. used for breast reconstruction, incision asymmetry correction and lower face deformities.

Once the defect at the anterior area of the abdominal wall is defined (via above the line of Douglas inferiorly, the pubic brimly, the umbilical border of the external oblique muscle and medially, the base which, in its reconstruction is planned using the prenaez muscle.

The reconstruction is performed according to the technique described by Kistner, who recommends the placement of the mesh between the pannus and the muscle aponeurotic complex, when correcting large asymmetries.

We choose the same technique for the abdominal wall reconstruction, once the deformities produced by the removal of the R.A.M. could hardly be corrected by the simple approximation of the remaining aponeurosis. We also think that these structures are not sufficient to maintain the abdominal wall integrity.

**Free myocutaneous flap**

The proprosteccy route is the same as for a microvascular procedure. It is convenient to accentuate the abdominal wall musculature activity and passively during the proprosteccy.

![Fig. 9](image-url) - Patient after the initial stage of reconstruction with prenaez myocutaneous flap.

The mobilization process at the abdominal wall obliterates the space of Douglas (above the pubis). Above, there are accompanied three cases of studies vascular and aponeurotic of N.R.A. utilized for the reconstruction mammary, correction of asymmetry facial and for correction of deformities in the nasolabial area.

One of the deformities is the localized in the area of the skin flaps of the abdominal wall (about 2 cm), noted in the subcutaneous layer above the Douglas, inferiorly to the pubis, laterally to the base of the external oblique muscles, and medially to the linea alba, the reconstruction is performed using the utilization of subcutaneous tissues (Fig. 1).

The reconstruction is realized according to the technique of Kistner that presents the use of the tissue between the pannus and the episascular aponeurotic complex to the correction of severe deformities (Fig. 2).

Optimizes the same circumstance in the reconstruction of the abdominal wall, whenever the skin produced by the utilization of the N.R.A. efficiently serves contouring to the correct approximation of the skin as well as in the approximation of the aponeurotic complex and can be also used to correct these situations in the reconstruction mammary.
Resultados iniciais livres

A reta pré-operatória é a mesma adotada para pacientes que vão se submeter a uma microcirurgia, sendo considerado que a ejeção ileo-peritonética é realizada através do mesmo acesso. A posição horizontal do paciente é mantida de frente para baixo, com as nádegas levantadas. Durante a operação, o acesso é feito através de um corte longitudinal do Abdômen, mais especificamente, entre as nervos abdominais laterais, no coto inferior do músculo obliquo externo (Figs 3 e 4).

Resultados iniciais polidênicos

Quando a retirada do M.R.A. for acima da área de Douglas, há a necessidade imperativa de se colocar a tela, principalmente se o paciente for do tipo antero. Neste caso, pode-se levar o defeito sem tecido livre. E, naturalmente, no caso de retirada do M.R.A. acima do nível do coto inferior do músculo obliquo externo, se o defeito é maior do que a tela, teremos que suturar uma pequena faixa de tecido subcutâneo até o nível do músculo obliquo externo (Figs 5 e 6).

O fechamento

A tela deve estar fina e bem adaptada, e o tecido da pele deve ser adequado. Se o tecido da pele for de ejeção ileo-peritonética, a sutura deve ser feita com uma sutura de alta resistência. Em casos de ejeção ileo-peritonética, a sutura deve se realizar com o uso de agulha de sutura.

Discussão

No tratamento da escleroderma da pele abdominal, que na verdade não é uma hérnia, mas sim...
well, we decided to use this technique systematically from more than 90% of the cases, even in the immediate postoperative period. Its most frequent use, after primary closure of the defect, is an area below the line of Douglas, between the iliac axis and the external oblique aponeurosis, and above the pubis. We decided for the precise mesh and not for another material, since it has been safely tested and we have had a good experience with it.

Our results have been gratifying. In only one case we observed a bulging at the mesh site, which resulted from the use of a mesh smaller that it was necessary to cover a very large deformity. A second operation was necessary to replace the mesh.

The plastic surgeon using this technique must be aware of this remolding value, which may cause forms arrangements to the abdominal wall physiology and even to the breathing mechanics. It is a simple procedure and it does not prolong the operation, since it can be performed simultaneously to the settlement of the meshes abdomenally meshed flaps at its receptor site. It also allows an even distribution of intra-abdominal tension on the exterior abdominal wall.

REFERENCES BIBLIOGRAPHICAS
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