CASE REPORT

Labial reconstruction with a cross-labial flap

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Summary Overzealous resection of the labia minora is a significant complication of labioplasty. Knowledge and understanding of reconstructive plastic surgical principles are required to manage such challenging complications. We report a case of iatrogenic labial asymmetry that was reconstructed with a cross-labial flap.

Labioplasty is a procedure requested by women for aesthetic, functional and psychological reasons. Asymmetry of the labia minora is one of the indications. We report a case of a 25-year old woman who presented with iatrogenic gross labial asymmetry.

The patient initially presented to a gynaecology unit two years prior with mild labial asymmetry. The patient underwent a labioplasty that involved amputation of excess tissue from the right labia minora. Unfortunately, too much tissue was excised with amputation of the entire right labia minora. The left labia minora and clitoral hood were preserved. This resulted in significant asymmetry, embarrassment and discomfort, particularly with intercourse (Figure 1).

This was not a problem that the senior author had previously encountered. It was felt that there was sufficient tissue remaining on the left side to allow reconstruction of the right side. After consideration of surgical options and thorough discussion with the patient, a cross-labial flap was proposed.

Figure 1 Significant iatrogenic labial asymmetry as a result of a cosmetic labioplasty that left the patient with an absent right labia minora.
Under general anaesthetic, a flap of left labial mucosa was raised, with preservation of an anterior pedicle. A recipient site was also prepared in the position of the absent labia minora. The flap was then passed across the introitus and inset in the right side with absorbable sutures. The flap lay across the vagina opening, inset on the right side with the pedicle on the left (Figure 2). The donor defect was closed primarily (Figure 3). To protect the suture lines a urinary catheter was left in situ for one week postoperatively, although the flap did not obstruct the urethral meatus.

Three weeks following the first procedure, the patient underwent division and insetting of the flap onto the right side. It was noted that the flap remained perfused once the main pedicle from the left had been divided. The wounds healed well postoperatively. There was still some degree of asymmetry and this was improved with a minor revisional procedure two months later.

Good symmetry was achieved and the patient was happy with the result (Figure 4). At 1-year postoperative review, the postoperative swelling had settled and she was happy with the aesthetic outcome and reported no functional problems. However, the neolabia was insensate.

Discussion

Labioplasty is requested by women with enlarged labia minora for functional and aesthetic reasons. A number of techniques have been described for this procedure, including simple amputation with preservation of the clitoral hood,\(^1\) wedge resection\(^2\) and deepithelialisation of the central portion of the labia minora.\(^3\)

This case raises a number of issues. Firstly, labioplasty is perhaps seen as a straightforward procedure, which is simply a case of amputation excess tissue. However, as this case exemplifies, there are potential pitfalls and it is vital that care is taken not to over-resect the labia minora or leave significant asymmetry.

Secondly, this case is a good example of how knowledge and understanding of basic reconstructive principles can be used to manage unusual reconstructive problems.

To reconstruct an absent labia minora, we referred to fundamental plastic surgery principles of reverse planning, replacing like with like, delay, tension free wound closure and placement of scars at natural junction lines.\(^4\) We considered all the options available on the reconstructive ladder, including tissue expansion.

Given the availability of tissue from the contralateral labia minora, we designed the cross-labial flap. Like the cross-finger flap, cross-leg flap and Abbe Flap, the cross-labial flap utilizes the principles of replacing like with like whilst minimizing the resultant donor defect. In this case, like tissue was preferred and available from the contralateral labia minora. Rolling over the flap of labia minora replaced mucosa with mucosa and skin with skin.

This procedure was planned around her periods and the flap did not obstruct her micturition, thereby not causing inconvenience or discomfort to the patient.
Although this is not a commonly presenting case, it justifies plastic surgery principles to solve the problem. This reconstruction has resulted in a very acceptable outcome for a very unfortunate presentation.

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Conflict of interest

None.

References