The Vermilionectomy and the Subsequent Lower Lip Reconstruction Were Introduced by Victor von Bruns and not by von Langenbeck or von Esmarch as Reported Previously

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Summary: Vermilionectomy is an established procedure for the management of precancerous lesions of the lip and is often performed simultaneously with a lower lip resection for the treatment of a malignancy. The literature suggests that Dieffenbach or von Langenbeck or von Esmarch was the first to introduce this procedure. A systematic review of the German literature from the 19th century revealed that it was von Bruns who performed the vermilionectomy for the management of lip malignancies for the first time. (Plast Reconstr Surg Glob Open 2016;4:e699; doi: 10.1097/GOX.0000000000000697; Published online 5 May 2016.)

**Vermilionectomy is an accepted technique for the therapy of precancerous conditions of the lower lip. It is performed simultaneously with reconstructive procedures after full-thickness lower lip resection in cancer cases. This technique provides a good functional and a favorable aesthetic result.1** Vermilionectomy and subsequent reconstruction have often been sidelined as a necessary procedure in the history of lip reconstruction.2,3 In the literature, the first description of vermilionectomy and the subsequent reconstruction were attributed to von Langenbeck,4 von Esmarch,5,6 von Langenbeck-von Bruns,7,8 and Dieffenbach9 among other authors.

**THE EVOLUTION OF THE TECHNIQUE AND MISINTERPRETATIONS**

In 1855, von Langenbeck described the use of full-thickness vermilion flaps based on the philtrum for reconstruction of a full-thickness rectangular lower lip defect in 2 patients,10 without providing an illustration. Von Esmarch, pupil of von Langenbeck, published an illustration of the von Langenbeck’s technique including a transposition flap of the chin, not mentioned by von Langenbeck in the original report of 1855 (Fig. 1).11 Von Langenbeck gave credit to Dieffenbach for the reconstruction of the vermilion with mucosa from the cheek together with the residual lower lip mucosa, pointing out that his procedure was different because of the use of full-thickness pedicled vermilion flaps.10 The covering of the reconstructed lip by means of mucosal flaps from the cheek or from the residual lip was routinely used in Germany at the beginning of the 19th century.12,13 This procedure was introduced by Wernek14 from Salzburg, Austria, and was relatively...
Fig. 1. A and B, “New technique for lip plasty through delivering and stretching of the vermillion” by von Langenbeck,10 translated from German (“Neues Verfahren zur Chiloplastik durch Ablösung und Verziehung des Lippenums”). Drawing was published by von Esmarch and Kowalzig (1892). The supplementary transpositional flap from the chin was not mentioned in the original report by von Langenbeck11 [2 drawings taken from the original (4 x 3.5 cm each) in Esmarch and Kowalzig11].

Fig. 2. Vermilionectomy as described by Victor von Bruns from the “Chirurgischer Atlas” from 1857.17 Legends translated from German: “Curved excision” (“Bogenschnitt”); (A), “lip mucosal lining after ‘Bogenschnitt’ using a continuous suture” (B), “Lateral view of the lip after ‘Bogenschnitt’ to explain the mucosal lining of the lip (three sections)” (C), the wedge excision of the red lip (C, first section) is explained in von Bruns’s18 Handbuch der praktischen Chirurgie (1859) as a further description of the vermilionectomy by Klose and Paul19; (D) “Lip mucosal lining after ‘Bogenschnitt’ using single stitches in the left lip side and using Serre-fines in the right lip side” [4 drawings taken from the original, plate XII/division II (48.5 cm x 33.3 cm) in von Bruns, 1857].17 The plate includes 45 drawings, each drawing sized 6 cm x 4.5 cm. Reprinted with permission from Mohr Siebeck, Tuebingen, Germany.
The vermilionectomy was rarely performed in the 19th century. Red lip resection and reconstruction was just not considered as being worth mentioning. Blasius stated this in 1848, criticizing the von Bruns’ technique in a report even before von Bruns had published this technique in his atlas.

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**SUMMARY**

The vermilionectomy was rarely performed in the 19th century. Red lip resection and reconstruction was just not considered as being worth mentioning. Blasius stated this in 1848, criticizing the von Bruns’ technique in a report even before von Bruns had published this technique in his atlas.

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