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Perioperative intralesional injection of fibrin glue for extirpation of oral haemangioma: A technical note

Dear Sir,

Although fibrin glue (FG) has been used in European medicine since 1978, it was first approved by the US Food and Drug Administration in 1998.[1] It is a natural haemostatic agent derived from plasma coagulation proteins, and composed of fibrinogen, fibrin-stabilising factor, thrombin and aprotinin.[2] Clinical applications of FG include its functions as a haemostat, a sealer, an adhesive, and a targeted delivery system for specific medications, growth factors and cell lines.[2] Krüger originally reported the use of FG to induce sclerosis and fibrosis of oral haemangioma (OH) in 1985. This can avoid unnecessary surgery of OH, especially in children.[3] Since then, FG is a widely used material for this intervention as published by many authors.[2] Intralesional FG injection for excision of resectable OH was first reported in the German literature by Hönig et al in 1991.[4] However, this simple technique has not been mentioned in the English literature hitherto.

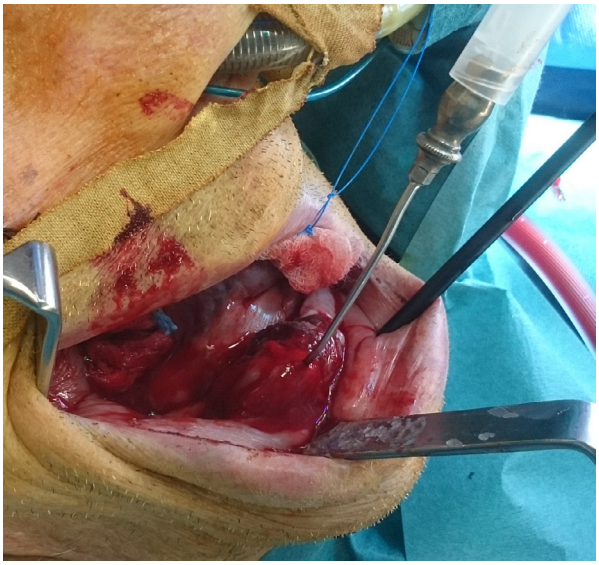

Figure 1 Intraoperative picture showing intralesional injection of the fibrin glue via oral mucosa and bony perforation into intraosseous haemangioma.

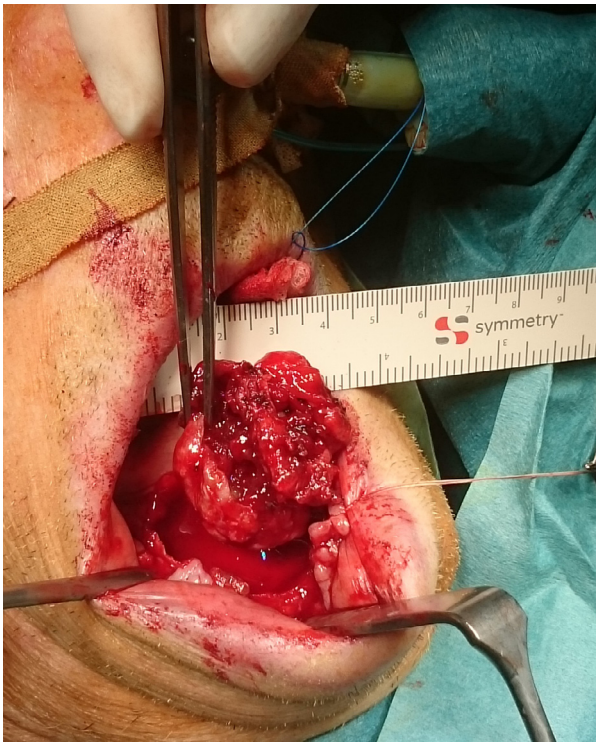

Figure 2 Intraoperative picture showing the lesion gelatinised by fibrin glue. The tumour is easily to identify and remove. Minimal intraoperative bleeding is also noted.

OH can occur as an intra-or extraosseous lesion. We use the FG Tisseel (Baxter AG, Wien, Austria), which consists of two components in two separate syringes: one contains calcium chloride thrombin and the other aprotinin. The two fluids must be thawed before use and appear as sheer and colourless and then slowly injected into the lesion.[5] For intraosseous lesions, we inject FG transmucosally via the area of tumour perforation into the lesion (Figure 1). Otherwise, the operator has to raise a mucoperiosteal flap exposing the bony table before gentle drilling this overlying bone with coolant in order to reach the tumour. To avoid blood loss from the injection hole, compression to the injection sites or holding/maintaining of the needle at the injection site

is recommended. After intralesional injection of FG with a blunt-tipped needle of the syringe, sufficient polymerisation is achieved within a few minutes. Polymerised FG will gelatinise the tumour, and subsequently, ease the complete piecemeal removal of OH with minimal or no risk of bleeding and tumour recurrence (Figure 2). Histopathological examination can be performed as usual. It is also possible to use this technique to help remove other fluid-containing lesions, such as branchial cyst of the neck, when it is used with methylene blue dye.[5]

Ethical approval

Not required.

Disclosure of potential conflicts of interest

The authors indicate full freedom of manuscript preparation and no potential conflicts of interest.

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