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Using a closed drainage system without vacuum

Problems with changes in a closed drainage system were reported in this journal in December 2005.¹ We have experienced another type of problem associated with the change of the drainage system.

If a closed suction unit still drains a lot of fluid after 48 hours we reduce suction to zero. A sterile urine bag is attached instead of the bottle to the closed system.

Because it is soft the urine bag can expand, and incoming fluids can fill the bag with no resistance.

When the type of suction drainage was changed, the tubes of the new suction drainage system no longer fitted the tubes of the urinary bags. If passive drainage was requested the nurses released the vacuum from the bottle and readapted it to the closed system.

Under these conditions fluids could not fill the bottle without resistance. The bottle would not expand but instead the pressure inside would rise, preventing more excretion. Drainage was not working as well as expected and air from the bottle was forced into the wound to replace the fluids drained.

This was solved by simply cutting off the adapters of both tubes and using an intermediate adapter (Fig. 1).

We recommend every surgeon who requests closed drainage without suction to carefully examine the construction of the drainage system and to make sure free passive movement of fluid is possible.

Reference

1. Cameron MG, Promod PA. Beware of changes in your closed drainage system. Br J Oral Maxillofac Surg 2005;43:537.

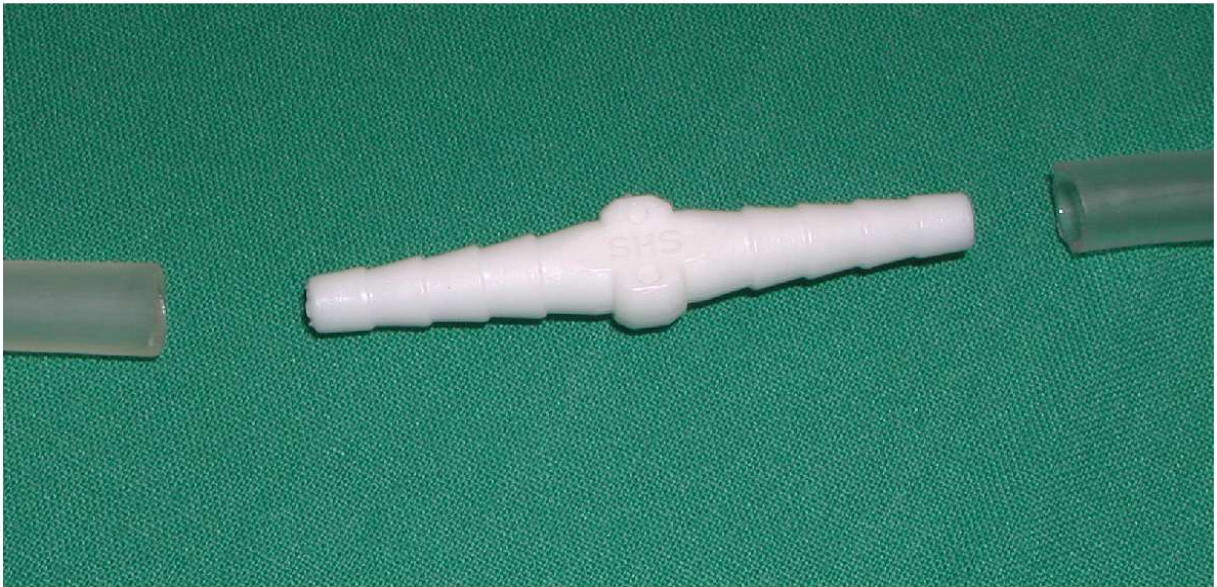


Fig. 1. Cut ends of the tube and intermediate adapter

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