Hemostatic plug: Novel technique for closure of percutaneous

nephrostomy tract.

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Abstract:

Percutaneous nephrolithotomy (PCNL) is a standard treatment for patients with large or complex

kidney stones. The procedure has traditionally included postoperative placement of a nephrostomy

tube to allow for drainage and possible reentry. This practice was first implemented after

complications incurred after tubeless PCNL in a small patient population. Recently, tubeless PCNL

has reemerged as a viable option for selected patients, resulting in decreased pain and analgesic

use, shorter hospitalization, quicker return to normal activity, and decreased urine extravasation.

Gelatin matrix sealants are occasionally used in nephrostomy tract closure. Techniques for delivery

of these agents have been ill described, and placement may be performed with varying results. We

present a literature review comparing tubeless PCNL to its traditional variant with indications for use

of each, as well as a comparison of agents used in closure. Finally, we outline a novel, reproducible

technique for closure of the dilated percutaneous renal access tract.

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