

Fig. 1. A diagram outlining the procedure.

A. We can exploit a drain that is located within or just adjacent to the fluid-filled pocket as a guiding route for a new drainage catheter. The solid line denotes the external portion of surgical drain, and the dotted lines, intraperitoneal portion of the drain. The fluid-filled pocket is noted adjacent to the drain.

B. A small cutaneous radial incision is made at the cutaneous exit site.

C. A dilator is inserted to give an easy way for the guide wire along the abdominal wall.

D. A guide wire is used to negotiate the preexisting intraperitoneal track along the surgical drain. Note the large curve of the distal portion of the guide wire suggesting entrance of the wire into the fluid-filled pocket. The dilator

can be advanced over the guide wire for the assurance of the good positioning by aspirating the fluid or injecting small amount of contrast media.

E. A new drainage catheter is inserted within the pocket.



Fig. 2. Case 1

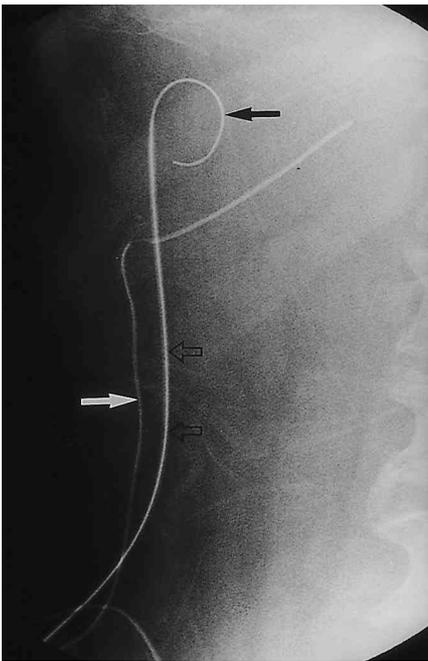
A. CT shows a large amount of right subphrenic fluid collection with multiple septations. A radiopaque surgical drain is noted at the medial aspect of the pocket.

B. The entire course of previously inserted surgical drain is noted (white arrow). A 7-Fr dilator is inserted through the cutaneous track, and a J-tipped guide wire is used to negotiate the intraperitoneal track. The dilator (blank arrows) is advanced over the guide wire (black arrow). Note the parallel course of the guide wire and the dilator along the preexisting drain.

C. The guide wire is inserted deeply to destroy the septa of the pocket after injection of small amount of contrast media.

D. A 10.2-Fr pigtail drainage catheter with multiple side holes is inserted over the guide wire.

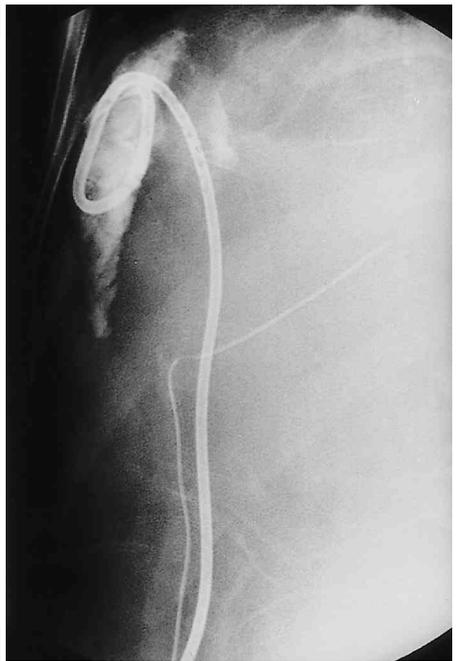
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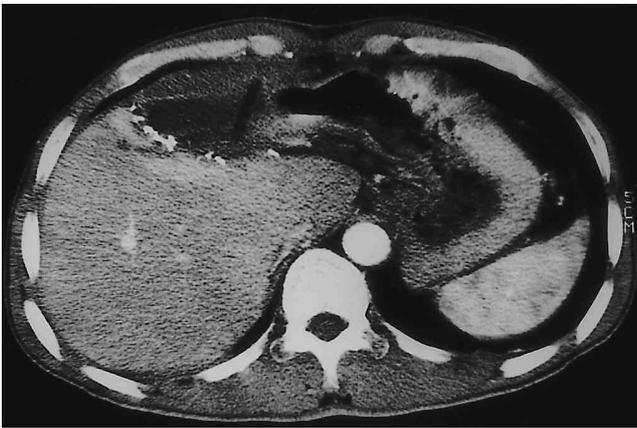
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Fig. 4. Case 3

A. A large amount of fluid collection is noted at the dead space of resected left hepatic lobe. The radiolucent line within the fluid-filled pocket is a T-tube.

B. The entire course of T-tube is well visualized by injection of small amount of contrast media through the tube. Note small amount of contrast leak near the limbs of the T-tube.

C. A 8.5-Fr pigtail drainage catheter is inserted along the T-tube.

1. vanSonnenberg E, Mueller PR, Ferrucci JT Jr. Percutaneous drainage of 250 abdominal abscesses and fluid collections. Part I. Results, failures, and complications. *Radiology* 1984;151:337-341
2. Mueller PR, vanSonnenberg E, Ferrucci JT Jr. Percutaneous drainage of 250 abdominal abscesses and fluid collections. Part II. Current procedural concepts. *Radiology* 1984;151:343-347
3. Lambiase RE, Deyoe L, Cronan JJ, Dorfman GS. Percutaneous drainage of 335 consecutive abscesses: results of primary drainage with 1-year follow-up. *Radiology* 1992;184:167-179
4. Hemming A, Davis NL, Robins RE. Surgical versus percutaneous drainage of intra-abdominal abscesses. *Am J Surg* 1991;161:593-595
5. Lambiase RE, Cronan JJ, Dorfman GS, Paoletta LP, Haas RA. Postoperative abscesses with enteric communication: percutaneous treatment. *Radiology* 1989;171:497-500
6. Martin EC, Karlson KB, Fankuchen EI, Cooperman A, Casarella WJ. Percutaneous drainage of postoperative intraabdominal abscesses. *AJR* 1982;138:13-15
7. Han JK. *Percutaneous abdominal abscess drainage*. In Han MC, Park JH. *Interventional radiology*. Seoul: Ilchokak. 1999:707-714
8. Holley DT, McGrath PC, Sloan DA. Necrotizing fasciitis as a complication of percutaneous catheter drainage of an intra-abdominal abscess. *Am J Surg* 1994;60:197-199
9. Zajko AB, Steed DL, Webster MW, Bron KM. Repositioning catheters in surgically drained abscesses. *Am J Surg* 1986;151:300-304

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## **Postoperative Intraabdominal Fluid Collections : A Modified Percutaneous Drainage Method using a Surgical Drain Track<sup>1</sup>**

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In the management of postoperative fluid collection, the conventional percutaneous drainage method can be employed. Because of abdominal incisions and various types of surgical drains and/or T-tubes, the application of this method is not always easy, however. We inserted a drainage catheter through a pre-existing percutaneous track formed by a surgical drain located adjacent to the site of abnormal fluid collection. There was no need to remove the drain nor make an additional puncture in the abdominal wall. A dilator was inserted along the drain, and a guide wire was used to negotiate its intraperitoneal track and reach the accumulated fluid. The procedure was simple and safe. We briefly describe our experience of this modified percutaneous drainage technique, as used in three cases involving postoperative fluid collection.

**Index words :** Abdomen, abscess  
Abdomen, interventional procedure  
Abscess, percutaneous drainage

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