

## Severe Arterial Bleeding after Percutaneous Transhepatic Cholangiographic Drainage

Percutaneous transhepatic cholangiographic drainage (PTCD) is a safe procedure, sepsis being the most relevant complication (1,2). Whereas bleeding from biliovenous fistulas – usually self-limiting – is reported in up to 10% of cases (3,4), bleeding from branches of the hepatic artery is a rare event. However, if it happens, it is difficult to manage. Within two years, approximately 800 PTCD and related procedures were performed in our department; three cases of arterial bleeding occurred. The most severe was that of a 79-year-old woman with a presumptive diagnosis of a malignant distal common bile duct stricture, not traversable by means of ERCP. PTCD was therefore performed (Figure 1) and dilation was



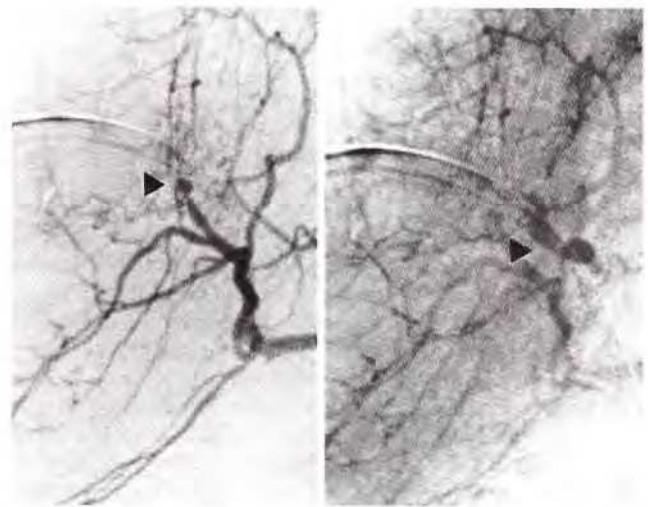
**Figure 1:** PTCD showing complete obstruction of the distal common bile duct.

achieved up to 12 Fr via the right hepatic duct. Bile drainage was effective, but the hemoglobin dropped from 12.1 to 8.0 g%, necessitating transfusion of 2 units of packed red cells. Removal of the 12-Fr Nimura prosthesis three weeks later in order to introduce a metal stent resulted in spurting bleeding from the PTCD tract that could only be arrested by introducing a 14-Fr Nimura PTCD. Two further attempts, and one spontaneous PTCD dislocation, again resulted in severe bleeding episodes, requiring transfusion of 11 units of packed red cells over three weeks. Finally, angiography, performed immediately after removal of the PTCD drainage, confirmed a contrast leakage from a branch of the right hepatic artery (Figure 2). The leakage was successfully closed by the application of endocoils (Figure 3). Creating a new PTCD channel, as proposed by Takahara et al. (5), was not necessary. A 16-Fr Yamakawa prosthesis was placed, and the hemoglobin remained stable. Three months later, a metal stent was successfully inserted to bridge the malignant stricture. Five months later, the patient is still well, the jaundice has resolved, and the hemoglobin is stable.

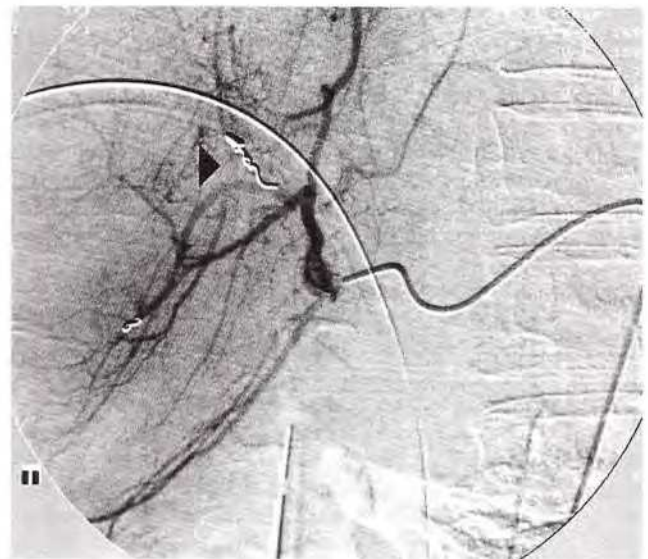
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**Figure 2:** Angiography (a arterial, b venous phase), showing contrast leakage from a branch of the right hepatic artery (arrowheads).



**Figure 3:** After insertion of endocoils (arrowheads), the leakage was blocked.

### References

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