Figure 1 The movement of the suction tubing back and forth through the 10-mm port-valve mechanism during manoeuvring of port 'end' controls suction applied.

Figure 2 A Spencer-Wells clamp applied to tubing during manoeuvring of suction tubing controls suction for removal of gallstone.

routine use, and the pneumoperitoneum and continued camera vision is maintained.

TECHNIQUE

A standard 10-mm port is used as a suction device by connection to the standard low-intensity theatre suction. The 'female' end of plain suction-tubing is removed and briefly inserted into the 10-mm port positioned over the spilled intraperitoneal gallstones. The suction-tubing is briefly passed to just past the port-valve mechanism causing the port to deliver suction to the stones without loss of the pneumoperitoneum (Fig. 1).

For peripherally positioned stones, the suction-tubing is 'clamped off' using Spencer-Wells forceps (to maintain pneumoperitoneum) and inserted through the port to reach the gallstones under camera vision (Fig. 2). Suction is controlled by release of clamping.

DISCUSSION

This new technique facilitates safe and efficient removal of spilled gallstones and friable fragments without additional cost and is especially useful for: (i) rapid and simple removal of intraperitoneal gallstones and friable gallstone debris with continued camera vision and pneumoperitoneum; and (ii) removal of large stones piece-meal.

References

1. Brockmann JG, Kocher T, Senninger NJ, Schurmann GM. Complications due to gallstones lost during laparoscopic cholecystectomy. *Surg Endosc* 2002; **16**: 1226–32.
2. Memon MA, Deeik RK, Maffi TR, Fitzgibbons Jr RJ. The outcome of unretrieved gallstones in the peritoneal cavity during laparoscopic cholecystectomy. A prospective analysis. *Surg Endosc* 1999; **13**: 848–57.
3. Kent 3rd RB, Stahl RD. Laparoscopic retrieval of spilled stones. *Surg Laparosc Endosc* 1992; **2**: 152–3.

Liver resection using the Atlas vessel sealing system

K TEPETES, D ZACHAROULIS, M SPYRIDAKIS,
C HATZITHEOFILOU
Department of Surgery, University Hospital of Larissa,
Larissa, Greece

CORRESPONDENCE TO

Konstantinos Tepetes, Assistant Professor of Surgery, 2
Athinas Str., Larissa 412 22, Greece
E: ktepetes@yahoo.co.uk

BACKGROUND

Various advanced techniques and instrumentation have resulted in low postoperative morbidity and mortality rates in liver surgery.^{1–3} The Atlas LigaSure device (Autosuture, United States

Figure 1 Activation of the Atlas LigaSure device.

Figure 2 Ligation of major vessel.

Surgical Corp. Norwalk, CT, USA) is a bipolar diathermy with an incorporated blade. We present a new technique for liver resection with minimal morbidity especially in cirrhotic livers.

TECHNIQUE

Eight cirrhotic patients underwent 12 liver segmentectomies. No vascular control was applied. The activation of the Atlas LigaSure device started with the clamp open on the liver parenchyma (Fig. 1). Then, gradually, the clamp was closed and the parenchyma was crushed between the limbs and divided using the incorporated blade at the same time. Anytime that a major vessel was identified, the liver parenchyma surrounding the vessel was crushed so that the vessel could easily be incorporated between the instrument's limbs, and safely ligated and divided at the same time (Fig. 2). No patient required any blood transfusion intra-operatively and none of them had biliary leak.

DISCUSSION

The Atlas LigaSure device is a bipolar electrocautery; therefore, the charring effect and the collateral thermal damage is minimised up to 2–3 mm.⁴ The incorporated blade allows the simultaneous division of the tissue saving operative time. There is ambiguous information in the literature regarding the safety of major bile ducts and vessels ligation using the LigaSure energy.⁵ However, all our cases were minor resections and we cannot comment on that further. One of the tips of this technique is the slow, gradual closure and the frequent cleaning of the clamp.

References

1. Adam R, Laurent A, Azoulay D, Castaing D, Bismuth H. Two stage hepatectomy: a planned strategy to treat irresectable liver tumors. *Ann Surg* 2000; **232**: 777–85.
2. Hansen PD, Isla AM, Habib NA. Liver resection using total vascular exclusion, scalpel division of the parenchyma and a single compression technique for haemostasis and biliary control. *J Gastrointest Surg* 1999; **3**: 537–42
3. Zacharoulis D, Asopa V, Navara G, Habib N. Hepatectomy using intraoperative ultrasound guided radiofrequency ablation. *Int Surg* 2003; **88**: 80–2.
4. Landman J, Kerbl K, Rehman J, Andreoni C, Humphey W, Olweny E *et al*. Evaluation of a vessel sealing system, bipolar electrosurgery, harmonic scalpel, titanium clips, endoscopic gastrointestinal anastomosis vascular staples and sutures for arterial and venous ligation in a porcine model. *J Urol* 2003; **169**: 697–700.
5. Shamiyeh A, Vattay P, Tulipan L, Schrenk P, Bogner S, Danis J. Closure of the cystic duct during laparoscopic cholecystectomy with a new feedback-controlled bipolar sealing system in case of biliary obstruction – an experimental study in pigs. *Hepatogastroenterology* 2004; **51**: 931–3.

Use of a cortical screw to aid single piece excision of the trapezium: a simple technique

N JAYASEKERA, JJ GREGORY, P LEGGETTER, SS AL-RAMADANI
Department of Trauma and Orthopaedics, Hereford Hospitals
NHS Trust, UK

CORRESPONDENCE TO

N Jayasekera, Specialist Registrar, Department of Trauma and Orthopaedics, County Hospital, Union Walk, Hereford, Herefordshire HR1 2ER, UK

T: +44(0)143 235 5444; E: najao1@doctors.org.uk

BACKGROUND

Simple excision of the trapezium or in combination with soft tissue or silicone interposition, fusion, ligament reconstruction or total joint replacement, remains an effective surgical treatment for trapezio-metacarpal osteoarthritis. Excision of the trapezium