Invited Speakers Session 2
World Practices 2: Parenchyma Section

Parenchymal dissection with CUSA

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How do you divide the liver?

The concept of liver dissection
The concept of liver dissection
The concept of liver dissection

Slash! (一刀両断)
The concept of liver dissection

Carving…?
The concept of liver dissection

I excavate!
The concept of liver dissection

I excavate!
The concept of liver dissection to excavate successfully
to excavate successfully
to excavate successfully

Dry operative field
Liver dissection procedure by excavating

Dry operative field

- Inflow control $\rightarrow$ Pringle maneuver
- Outflow control $\rightarrow$ reducing CVP
- Useful devices
- Appropriate technique
CUSA® Excel & VIO®

Multiple functions
1. excavation
2. suction
3. stanching
4. transection
Lap-hepatectomy with CUSA® Excel

How to utilize CUSA®
CUSA vibrates longitudinally.

CUSA sucks fluid at the tip.
When using it as a CUSA, the tip edge should be used.

Multiple manners to move the tip edge of CUSA
By inserting obliquely, CUSA becomes a scoop.

Shoveling

Glisson
By inserting longitudinally, CUSA becomes a boring machine.
By back scoring (scratching), CUSA becomes a spatula.

Exposure of the vessel (Glisson)
CUSA vibrates longitudinally.

The flank (lateral aspect)
The flank (lateral aspect) of the metal tip is atraumatic!!

Techniques utilizing the flank (lateral aspect)

1. pushing off the vessel with the flank,
   ablate the parenchyma behind the vessel with the tip
push off the vessel with flank and ablate parenchyma behind the vessel with tip edge
To apply the VIO, compressing the bleeding point (vessel) with the flank to stop the bleeding or oozing.

The flank (lateral aspect) of the metal tip is atraumatic!!

Techniques utilizing the flank (lateral aspect)

1. pushing off the vessel with the flank, ablate the parenchyma behind the vessel with the tip
2. To apply the VIO, compressing the bleeding point (vessel) with the flank to stop the bleeding or oozing
The metal tip is vibrating and is covered by mist.
☞ Surrounding burned tissue does not stick on it.
..... Soft-coagulation benefit is enhanced.

The flank (lateral aspect) of the metal tip is atraumatic!!
The flank (lateral aspect) of the metal tip is atraumatic!!

Compress in flank, applying CUSA function!
Gentle compression does not work.
Obstruct blood flow, and seal the vessel.
Hemostasis completed!

Obstruct blood flow, and seal the vessel.
compress the bleeding point (vessel) in flank, applying VIO
Another way to flat the vessel

The bleeding from the vessel buried in parenchyma
Another way to flat the vessel

The bleeding from the vessel buried in parenchyma
Another way to flat the vessel

The bleeding from the vessel buried in parenchyma

Hemostasis completed!
compress the bleeding point (vessel) in flank, applying VIO
Lap-hepatectomy with CUSA® Excel

How to move CUSA®
Vena cava

Open surgery
Vena cava
Vena cava
Blood accumulates!
Vena cava
The caudodorsal approach in Lap-H
The caudodorsal approach in Lap-H

Because blood runs down, dissected portion remains dry.

Lap-H

Vena cava
Split injury to the hepatic vein
Split injury to the hepatic vein
Split injury to the hepatic vein
The caudodorsal approach in Lap-H is useful for the approach to the Glissonean tree as well.
From the periphery, we cannot identify the border of these trees.
We *can* identify the border of these trees by advancing from the roots side.
We can identify the border of these trees by advancing from the roots side.
We can identify the border of these trees by advancing from the roots side.
We *can* identify the border of these trees by advancing from the roots side.
Moses

Intersegmental plane
The caudodorsal approach in Lap-H is useful for dissection in the intersegmental plane.
Conclusion

The concept of liver dissection is excavation in the dry field.
Thank you for your kind attention.

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