# MP63-13

## Investigation of the ideal position for endoscopic combined intrarenal surgery: Prone split-leg position vs. modified Valdivia position

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### **Objectives**

- This study aimed to investigate the ideal position for ECIRS to examine
  - (1) the characteristics of treatment results between two positions between prone split-leg (PSL) and modified Valdivia (MV) position.
  - (2) the changes in renal anatomy by using 3D-computed tomography (CT) between the PSL and the MV position.





prone split-leg position modified Valdivia position

#### **Patients and Methods**

- [1. Clinical examination]
- □ The patients were 89 of 112 patients who underwent ECIRS between January 2014 and May 2015. The 89 patients selected were those with a major stone axis sum of ≤70 mm (P position: Mod-V position = 49:40)
- We examined the characteristics of the treatment results.

#### [2. 3D-CT investigation]

- **Before surgery**, 7 patients underwent contrast-enhanced CT image in the P and oblique (35<sup>°</sup> above the bed) positions.
- Anatomical variation were analysed between the prone and oblique position.



Nephrostomy tract length
The tilt of the major renal axes (anterior)
The tilt of the major renal axes (lateral)
The distance between the 12<sup>th</sup> rib and the iliac

Results	Variabla	PSL position (N=49)	MV position (N=40)	n valuo
【1. Clinical examination】	Variable	n (%)	n (%)	p value
	Access location			<0.001ª
	upper pole	0 (0)	2 (5.0)	
	middle pole	6 (12.2)	29 (72.5)	
	lower pole	40 (81.6)	9 (22.5)	
	SFR	40 (81.5)	34 (85.0)	0.89ª
	% fever up (>38 <b></b> 0)	6 (12.2)	1 (2.5)	0.07ª

#### [2. 3D-CT investigaton]





#### Conclusions

- The MV position is better suited than the PSL position is for puncture of the middle calyces but not the lower calyces, because, the lower kidney may be displaced medially and ventrally in the MV position because of gravity.
- Because the surgical results are not altered when the tract is safely established, flexibility in alteration of the positions depending on the stone position, body type, and infection status will lead to an ideal treatment.

