



Hand Assisted Laparoscopic Colectomy

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Hand Assisted Laparoscopic Surgery

As Described by A. Darzi , M.D. , FRCS , FRCSE

Palpate organs or tumors

Reflect organs atraumatically

Retract structures

Identify vessels

Dissect bluntly along a tissue plane

Proximal control of bleeding points

Knot tying

Reducing both number of ports and instruments

Accurately judge depth perception

Easier to learn and perform

Shorten the learning curve



What Procedures are Suitable for Hand Assisted Laparoscopic Technique?

- **Laparoscopically assisted procedures**
- **Necessitated conditions for conversion**

Laparoscopically Assisted Procedures

Colectomy

Splenectomy

Gastrectomy

Pancreatectomy

Hepatectomy

Nephrectomy

Hysterectomy

Tumor Removal

Necessitated Conditions for Conversion

Bleeding

Adhesion

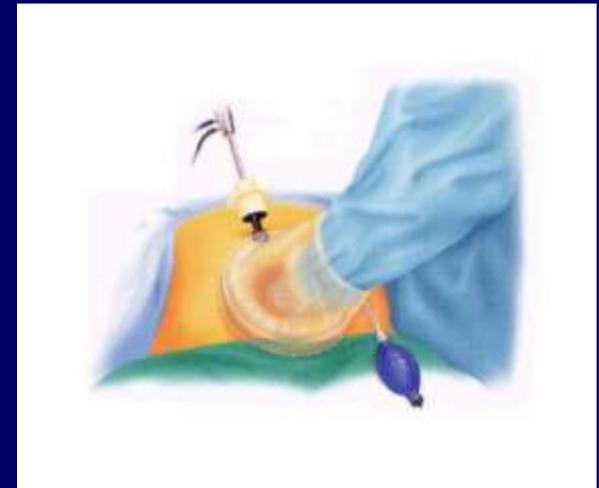
Organ injury

CBD exploration

Biliary by pass procedures

Prolong operative time

Hand Port System (Smith & Nephew)



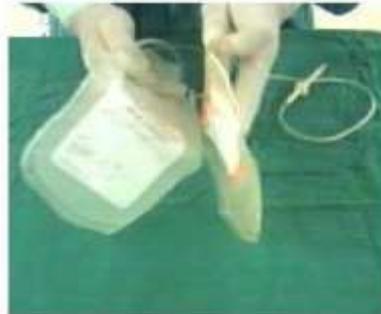
Lap. Disc

(Johnson & Johnson)



The Forearm Balloon Invention

Poschong Suesat , M.D.



Two Transfer bags



Sewing together



Balloon test



Put on The Forearm



Cover with The Long Glove



Balloon Inflation

The Forearm Balloon Version 2

Poschong Suesat , M.D.



Two Transfer bags



Binding together



Put on The Forearm



Bandaging the proximal part



Cover with The Long Glove



Balloon Inflation

Laparoscopic Surgery for Colon Cancer

(Surgical Clinics of North America Feb2005 Vol85 Number1)

Accomplished Laparoscopic Surgeon
15 Laparoscopic Colectomies

Average Surgeon

25 Hand-assisted Cases

50 Totally Laparoscopic Cases

Gastrointestinal Motility

Table 1

Randomized trials investigating return of bowel function after laparoscopic colectomy

Authors	Year	No. of patients	Time to bowels open	Significantly shorter than open
Milsom [40]	1998	54	3	Yes
Curet [42]	2000	18	2.7	Yes
Lacy [41]	2002	111	1.5	Yes
Hasegawa [43]	2003	29	2	Yes

Posoperative Pain

Table 2

Randomized trials investigating reduction in pain after laparoscopic colectomy

Author	Year	No. of patients	Less pain	Significantly less pain than open
Stage [52]	1997	15	Yes	Yes
Schwenk [53]	1998	30	Yes	Yes
Milsom [40]	1998	54	Yes	Yes
Weeks [47]	2002	168	Yes	Yes
Hasegawa [43]	2003	29	Yes	Yes
Nelson [48]	2004	345	Yes	Yes

Length of Hospital Stay

Table 3

Randomized trials investigating reduction in hospital stay after laparoscopic colectomy

Author	Year	No. of patients	Length of stay	Significantly less than open
Stage [52]	1997	15	5	Yes
Schwenk [53]	1998	30	10.1	Yes
Milsom [40]	1998	54	5.2	no
Curet [42]	2000	18	5.2	Yes
Lacy [41]	2002	111	5.6	Yes
Weeks [47]	2002	168	7.1	Yes
Hasegawa [43]	2003	29	5	Yes
Nelson [48]	2004	345	5	Yes

Long-term Outcomes and Survival

Table 4

Trials investigating recurrence and survival after laparoscopic colectomy

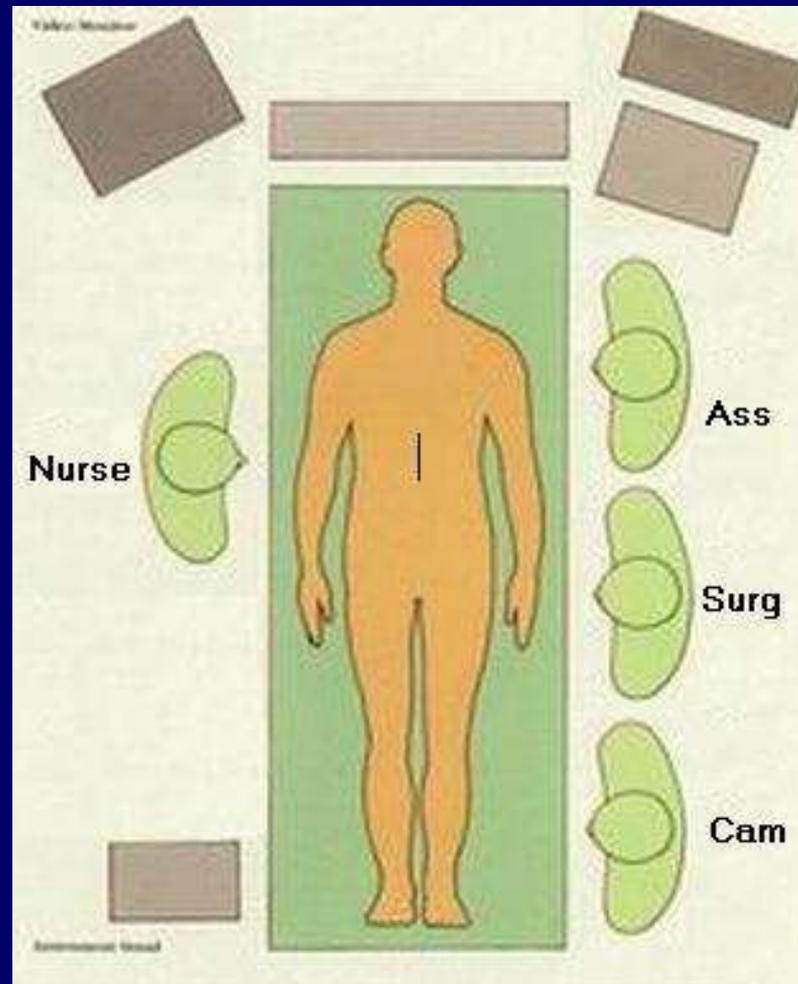
Author	Year	Study type	No. of patients	Recurrence %	Survival (year)	Survival %
Anderson [69]	2002	P	100	16.1	5	75.7
Scheidbach [70]	2002	P	206	11.6	5	80.9
Franklin [57]	1996	Cc	165	12.2	5	89.7
Schwandner [71]	1999	Cc	32	15.6	3	93
Hartley [72]	2001	Cc	21	5	3	71
Lacy [41]	2002	R	106	17	5	91
Nelson [48]	2004	R	345	0.5	4.4	77

Abbreviations: Cc, Case control; P, prospective; R, randomised.

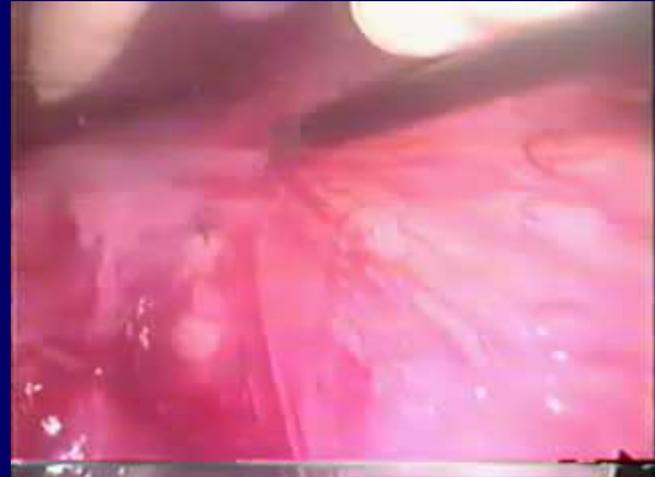
Hand Assisted Laparoscopic Colectomy

Sex	Age	Diag.	Op. time (Min)	Hos. Stay (days)
F	50	Diverticulitis RC	160	7
F	69	CA Cecum	210	7
F	46	Cecal Mass	140	7
M	63	Diverticulitis LC	110	7
F	52	CA Sigmoid	135	6

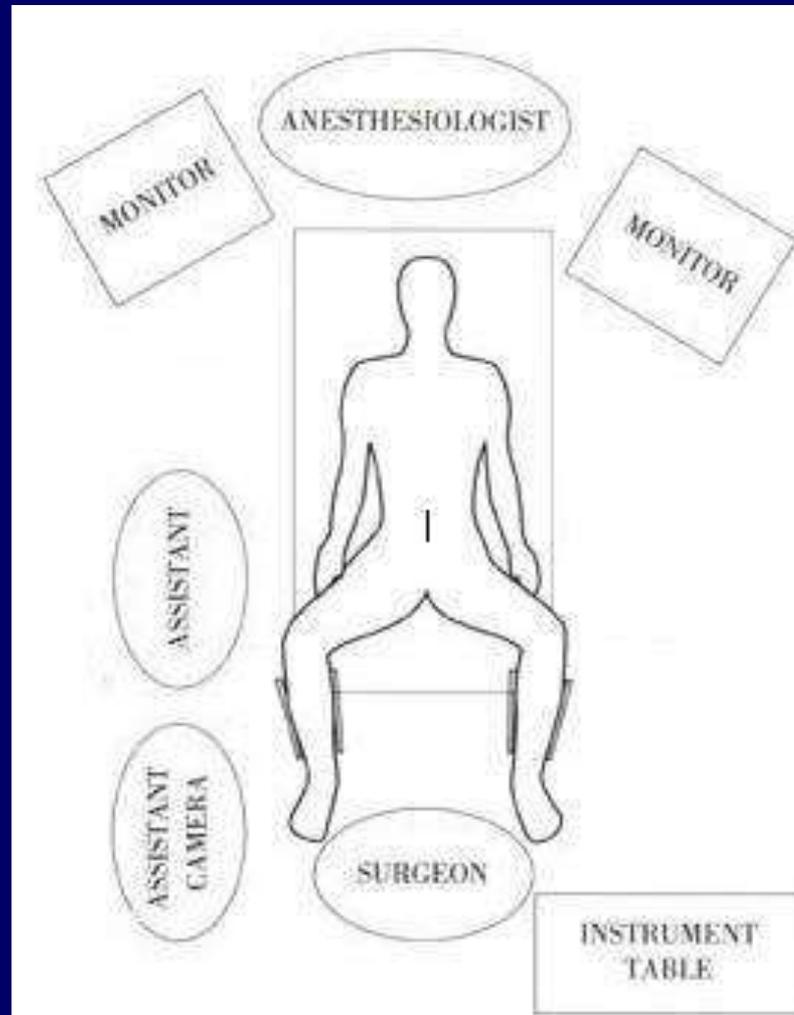
Hand Assisted Laparoscopic Right Colectomy



Hand Assisted Laparoscopic Right Colectomy



Hand Assisted Laparoscopic Left Colectomy



Hand Assisted Laparoscopic Left Colectomy





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**THE
END**

