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Manage patients with malignant pleural effusion (MPE) using indwelling pleural catheter (IPC) for intermittent drainage at outpatient setting

A safe and cost effective approach

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MPE is common and worsen patient's quality of life

Not all patients can be effectively managed by pleurocentesis followed by pleurodesis

Patients with entrapped lung or failed pleurodesis

Intermittent drainage via

Indwelling pleural catheter (IPC)

Intermittent drainage via IPC in MPE patients

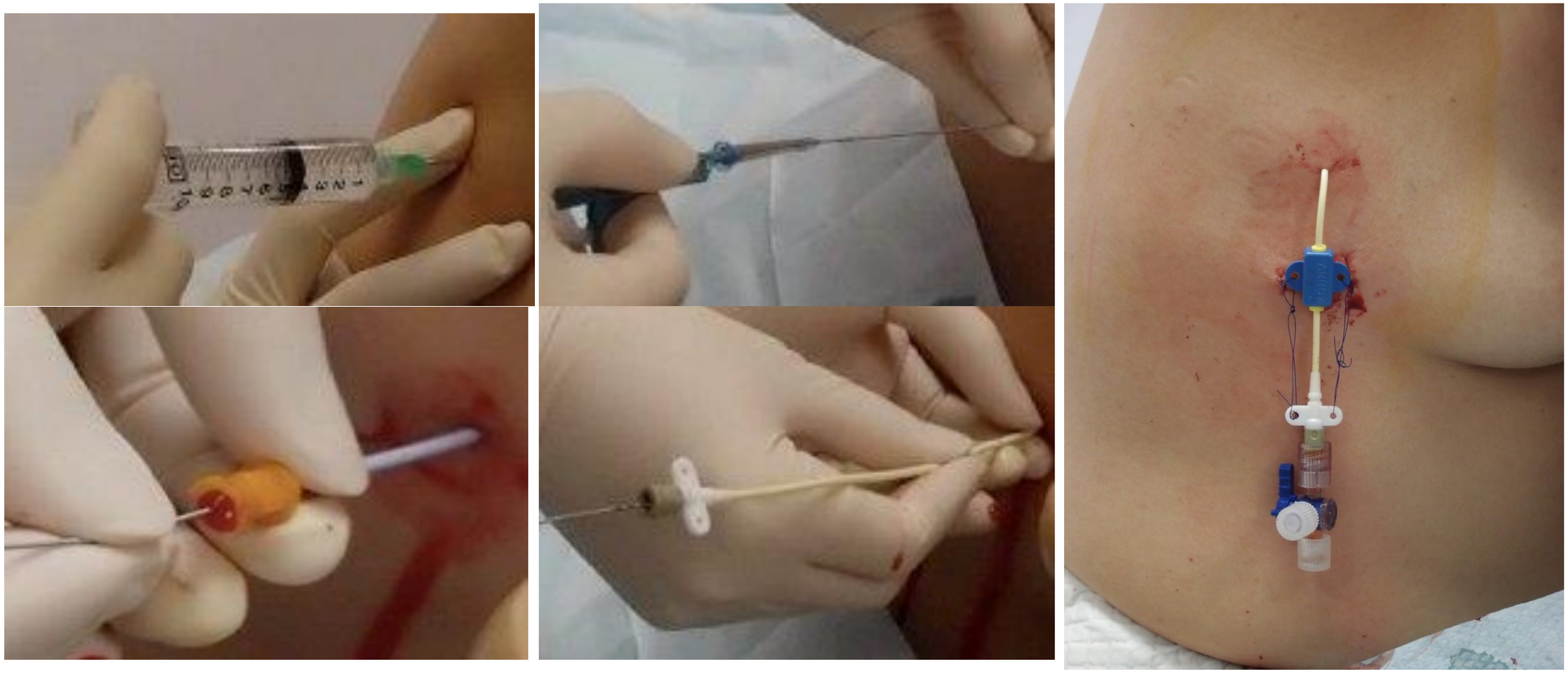
Service set up in Jan 2012

Structured protocol on selecting patient

Guidelines on drainage procedure in out-pt

Credential training program on insertion of IPC

Insertion of IPC using seldinger technique
A simple bedside procedure



A credential program is set up to train the doctors for insertion of IPC and nurses to assist the procedure

Overview

From Jan 2012 – Dec 2012

4 patients were treated and prospectively monitored

Major outcomes:

- **Patients beddays (from procedure to death)**
- **Catheter related complications**
- **Patient's chest symptoms**

Results (1)

No of patients	**N=4** **(CA lung n=3, CA breast n=1)**
Median time of followup	243 days (Range 99 – 374 days)
No of pleural drainage done at out-patient	71 (Median 21, range 4-26)
Median time of drainage interval	7 days (range 3-42 days)
Amount of fluid drained per session	1000ml (range 200-1500ml)

- **Recurrent effusion is common**
- **Frequent drainage is needed**
- **Using IPC allow intermittent drainage at out-patient and avoid admission**

Results (2)

No of patients	**N=4** **(CA lung n=3, CA breast n=1)**
Total survival days	958 days (Median 243, range 99-374 days)
Total patient beddays	68 days (Median 8 days, range 4-48 days)
Total effusion-related beddays	27 days (Median 7 days, range 0-14 days)
Total number of pleurocenesis done	6 (Median 1.5, range 1-2)

- **Only 7% of patient's survival days were hospitalized**
- **Admission significantly reduced**
- **Repeated invasive pleural procedure avoided**
- **Patient's QoL may improved**

Results (3)

	Pre-drainage	Post-drainage
Dyspnea	2.3 (Range 0-8)	0.5 (Range 0-5)
Chest distension	4.6 (Range 0-9)	0 (Range 0)

Symptoms score rated from 0-10 (worst perceived symptoms)

- **Almost all patients with good symptom relief after drainage**

Results (4)

Using IPC for intermittent drainage is safe

- No IPC related infection was reported
- Only one catheter-related complication documented: oozing of pleural fluid from wound
- All patients with good acceptance of IPC in domestic environment

Conclusion

With structured protocol, guideline and credential program Using IPC for intermittent drainage in MPE patients

- **Reduce hospital stay**
- **Avoid repeated invasive pleural procedure**
- **Good symptom relief**
- **May improve patient's quality of life (QoL)**
- **Safe and with good acceptance in domestic environment by patient**

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