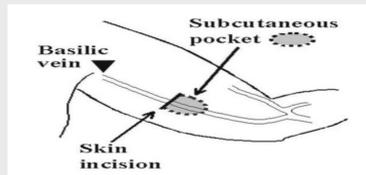


### ABSTRACT

**Background:** Millions intravenous catheters are purchased annually; despite the availability of a variety of devices, each showing different features and performances, there are no definitive data for the choice of the appropriate device and insertion site; particularly the reduction of long-term complications like thrombosis and infections.

**Objective:** Evaluation of the Durability and cost effectiveness of peripheral inserted portcath with drum port insertion over the anterior surface of the fore arm in comparison to central inserted catheters with drum port insertion over the anterior surface of the chest wall for chemotherapy.

**Conclusion:** Central catheters inserted through a peripheral vein of the arm and the drum port is inserted over the anterior surface of the fore arm is a safe, easy, have more patients compliance with less complications and better patency rates for chemotherapy .



### BACKGROUND

Millions intravenous catheters are purchased annually; despite the availability of a variety of devices, each showing different features and performances, there are no definitive data for the choice of the appropriate device and insertion site; particularly the reduction of long-term complications like thrombosis and infections.

### PURPOSE

Comparison between internal jugular vein and Upper arm approach through basilic or cephalic veins in insertion of total implantable central venous port regarding, early post-operative complications patency rate patient's compliance and quality of life.

### METHODS

50 patients admitted to Alexandria insurance Hospital-Egypt suffering from different neoplastic diseases requiring chemotherapy who underwent percutaneous TIVPP divided randomly into 2 groups:

- Group (A):
  - 25 patients had central venous approach
- Group (B):
  - 25 patients had peripheral venous approach

Between Nov.1<sup>st</sup> 2015- Nov.30<sup>th</sup> 2017  
All patients were clinically examined and treated as part of routine care and provided informed consent with institutional review board approval.

Implantation via an upper arm done through venous cut down, the internal jugular vein was performed using Percutaneous technique. All approaches were under fluoroscopic guidance.

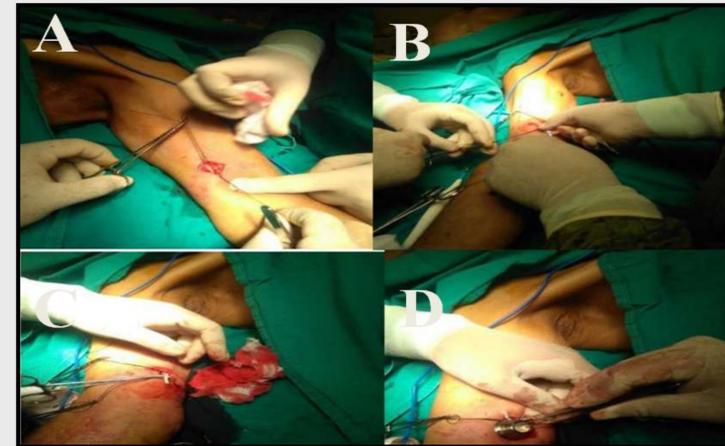
\*\*\*\*Follow up.

### RESULTS

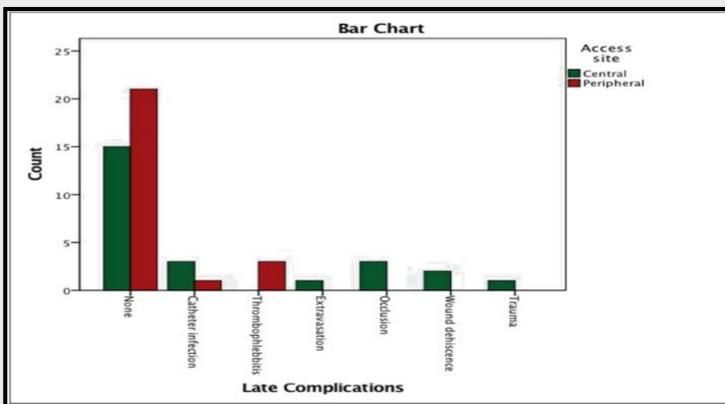
Variable	Number	Percent %
Gender		
Male	25	50%
Female	25	50%
Malignancy		
Cancer colon	24	48%
Cancer stomach	4	8%
Cancer bone	2	4%
Others	6	12%
Cancer Esophagus	4	8%
Cancer Breast	10	20%
Access site		
Central	25	50%
Peripheral	25	50%
	18 basilic	
	7cephalic	

Access site	Catheter Removal				p-value
	Cath occlusion	End of therapy	infection	Patient requested to keep the port	
Central (25pt)	3 (12%)	4 (16%)	2 (8%)	16 (64%)	0.182**
Peripheral (25pt)	0	5 (20%)	1(4%)	19 (76%)	
Total	3(6%)	9(18%)	3(6%)	35(70%)	

### RESULTS



Access Site	Intraoperative complications				P-value
	None	Arterial puncture	P thorax	H thorax	
Central(25pt)	22 (88%)	3 (12%)	0	0	0.037
Peripheral(25pt)	25 (100%)	0	0	0	
Total	47(94%)	3(6%)	0	0	



Access site	Difficulties to Nurse		P-value
	Yes	No	
Central 25pt	0	25 (100%)	0.015**
Peripheral 25pt	4(16%)	21(84%)	
Total	4(8%)	46(92%)	

### RESULTS

Access site		Port causes unpleasant feeling			p-value
		Yes	No	Sometime	
Central(25pt)		1 (4%)	16 (64%)	8 (32%)	0.486**
Peripheral(25pt)		0	16(64%)	9 (36%)	
total	50	1(2%)	32(64%)	17(34%)	

Access site		Fear of port trauma			p-value
		Yes	No	Sometime	
Central25pt		3 (12%)	22 (88%)	0	<0.0001**
Peripheral25pt		5 (20%)	11 (44%)	9 (36%)	
total	50pt	8(16%)	33(66%)	9(18%)	



### CONCLUSION

TIVPPs can be implanted with high technical success rates, and upper arm implantation may be beneficial for clinicians and patients with respect to reducing the risk of intra operative complications such as arterial injury, pneumo or hemothorax, noninterference in breast imaging, easier access to puncture, and better cosmetic results with better quality of life....

### DISCLOSURES

N/A