

가:

1

2

:
: 1997 4 1999 6 63 ,
63 40:23, 11 - 77 (51)
(61) (2)
7 - 8 cm
Meier method 가
: 63 . 2
12 - 855 (187) Kaplan -
Meier 305.7 ± 47.6 . 8
3 1 ,
3 7 16
2 2 1
1 Urokinase
:

1973 Broviac 가 (4, 5)
가
1979 Hickman 가
가 가 (1, 2)
가 가 (44 -
1988 Brothers 74%) (98.7 - 100%)
가
(3). , Damascelli Andrews

1
2
2000 3 3 2000 6 1
(6 - 12).

가
(13, 14),
(15) (Fig. 1),
(16) 가
(14)
1997 4 1999 6
(Chemoport, MRI implanted port , Bard, Inc. U.S.A.)
63 , 63
40:23, 11 - 77 (51)
61 , 2
22 , 12 ,
7 , 6 , 2 , 2 , 2 ,
6 (Fig. 2).
50 mg

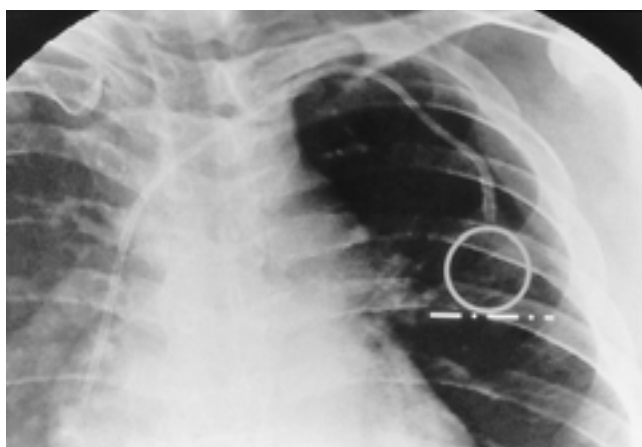


Fig. 1. Placement of implanted central venous port on anterior chest wall. Radiolucent port is indicated by circle, and skin incision line is indicated by broken line.

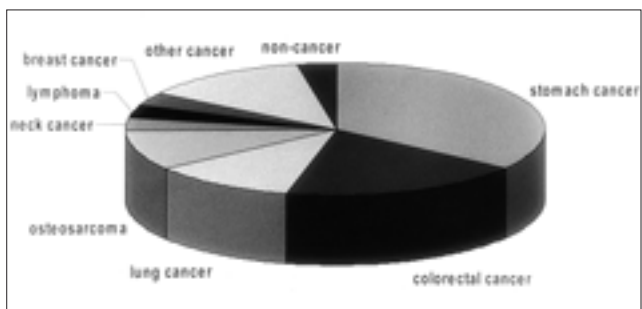


Fig. 2. Diseases of patients

(Demerol)
1%
1
(0.035)
pinch - off syndrome
7 - 8 cm
(Fig. 3).
가
(Fig. 3).
peel - away
sheath
(non - coring needle) (Heparin sodium 100 IU/mL,)
(3
Cephalosporin, Gentamicin) 2.0
(Vicryl) 4.0 silk

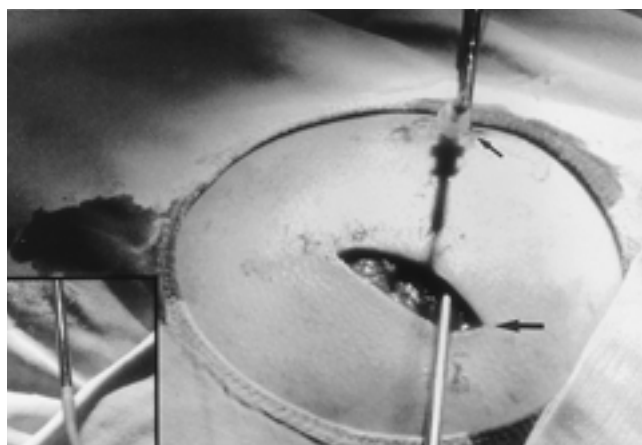


Fig. 3. Implantation of central venous port on anterior chest wall. Subclavian vein is punctured (small arrow) under fluoroscopic guide during venography. Subcutaneous pocket (large arrow) is created by mid-clavicular horizontal skin incision & blunt dissection. Catheter-attached tunneler penetrated through subcutaneous tissue.

analysis 가 , t - test 47.6 (Fig. 5). t - test 305.7 ± (p > 0.05).

63 . 2

12 - 855 (187
12 - 836 (

3 177)
3 3 7
8

Urokinase
(Fig. 4), 1

1 non - fermentating
bacilli가

fibrin sleeve
가 2 1

*Burkholderia cepacia*가

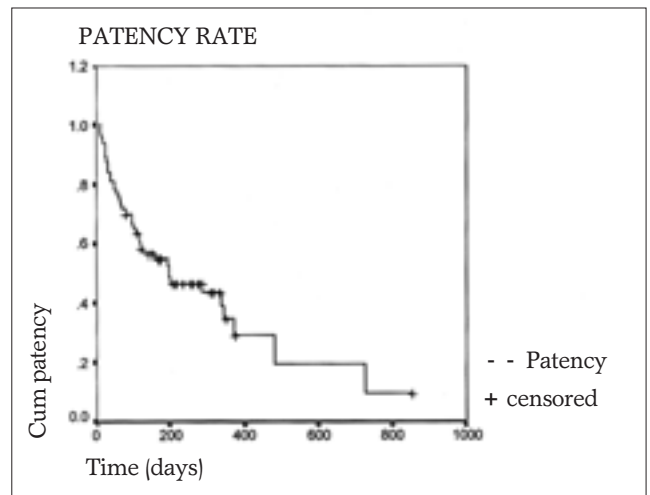


Fig. 5. Kaplan-Meier survival curve of 63 patients.

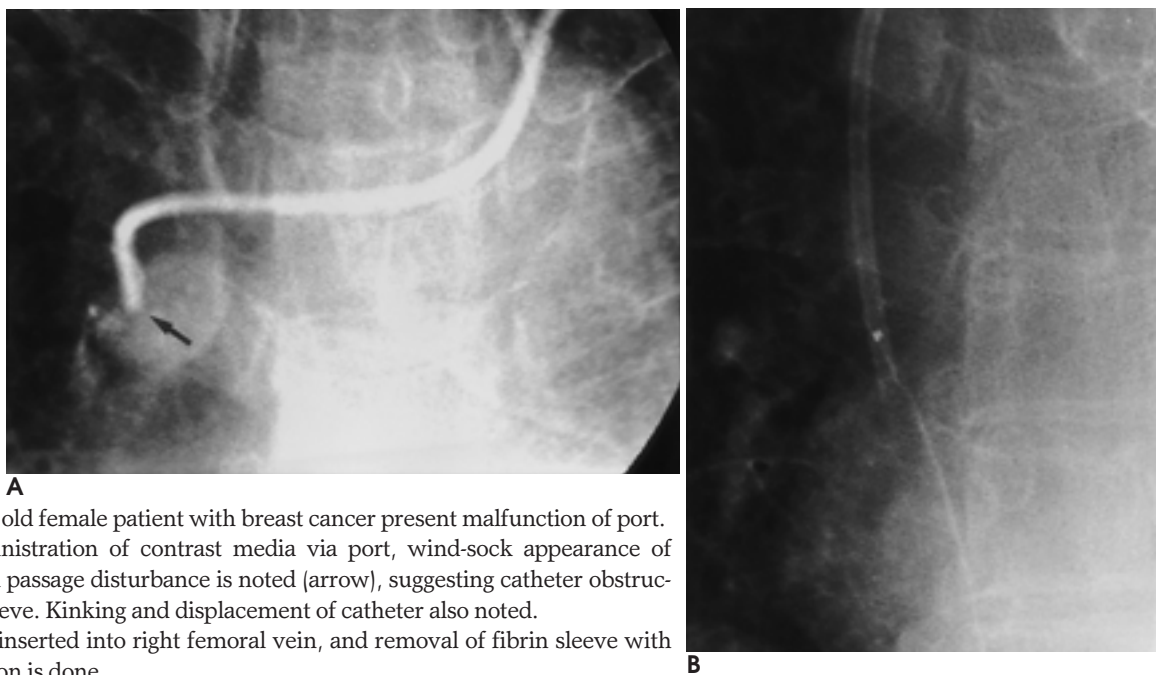


Fig. 4. A 66-year old female patient with breast cancer present malfunction of port.
A. During administration of contrast media via port, wind-sock appearance of catheter tip with passage disturbance is noted (arrow), suggesting catheter obstruction by fibrin sleeve. Kinking and displacement of catheter also noted.
B. Snare wire is inserted into right femoral vein, and removal of fibrin sleeve with catheter reposition is done.

가 (&) 14 - 18 G 22 G
(Cook)
가 , 가 , , , pinch - off syndrome
,
,
가 (17).
(18).
, 10 - 30%
, 50 - 70% (skin flora)
가 가 (14, 17).
가
, , , ,
,
가 가
가 , 1
가 , non -
가 가 fermentating bacilli가 3
, 가 *Burkolderia cepacia*(skin
flora)가
가
가
가 (13), 가 (13), 1000
0.085
1 (13, 15, 19, 20) (Table 1),
,
가
가 , ,
가 가
가 가
, 가
,
(14). 1 mg warfarin
2 - 3
cm
24
24
2 - 6% (13, 15)

Table 1. Comparison of Complication Rate: Infection and Thrombosis(complication rate per 1000 days of device use)

	Surgical		Interventional			
	Winters	Carey	Simpson(7)	Shetty(6)	Lyon(8)	This Study
Infection	0.4	0.3	0.25	0.04	0.2	0.085
Thrombosis	0.4	0.1	0.28	0.11	0.2	0.25

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Evaluation of Anterior Chest Wall Implanted Port: Technical Aspects, Results, and Complications¹

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Purpose: To evaluate the technical aspects, results and complications of patients with implanted anterior chest wall port.

Materials and Methods: Between April 1997 and June 1999, a total of 63 implanted ports were placed at the anterior chest wall of 63 consecutive patients by interventional radiologists. The indications were chemotherapy in 61 patients and total parenteral nutrition in two. The peripheral portion of the subclavian vein was punctured under fluoroscopic guidance via ipsilateral peripheral vein during venography. A central venous catheter was placed in the superior vena cava, and using the subcutaneous tunneling method, a connected infusion port was implanted at the anterior chest wall. Results and complications were reviewed, and by means of Kaplan-Meier survival analysis, the expected patency of the port was determined.

Results: The technical success rate for implanted port at the anterior chest wall was 100%(63/63 patients). In two patients, hematoma and oozing were treated by compression. The duration of port implantation ranged from 12 to 855(mean, 187) days, and the port patency rate was 305.7 ± 47.6 days. In seven patients [completed chemotherapy (n=3), central venous thrombosis (n=3) catheter-related infection (n=1)], the port was removed. Catheter obstruction occurred in two patients, and in one, the use of urokinase led to successful recanalization. Sixteen patients died of an underlying malignancy, but no catheter-related death was noted.

Conclusion: Implantation of an anterior chest wall port is a safe and useful procedure, with long patency, for patients requiring chemotherapy and long-term venous access.

Index words : Catheters and catheterization, technology
Catheters and catheterization, complications
Catheters and catheterization, central venous access
Fluoroscopy

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