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REPAIR OF PELVIC ORGAN PROLAPSE USING MESH AND IVS TUNNELERS: RESULTS AND COMPLICATIONS.

Pelvic organ prolapse is a highly prevalent condition for which approximately one in nine women undergoes surgery in time. No consensus exists on the optimal surgical management of pelvic organ prolapse. Because of high recurrence rates in classic prolapse surgery, the use of mesh materials is steeply rising. In our clinic meshes are used most of the times (>85%) for the treatment of recurrent prolapse, for more then 5 years.
In this prospective intention to treat study our objective was to evaluate the results of transvaginal repair of pelvic organ prolapse using meshes, placed with IVS® (Covidien) tunnelers. In this study we used two meshes, the older, normal weight Surgipro® mesh and the new, light weight Parietene light® mesh separately (both Covidien).
In this prospective cohort 115 patients who underwent surgery using these mesh materials were extensively documented and interviewed preoperative and postoperative.
Our main finding is a cure rate at the follow up of one year ranging from 96,7% till 100% and a significant improvement in the quality of life score.
We found a low complication rate: four (3.4%) major haematomas peri- and postoperative, two leading to re-intervention and, after twelve months of follow up, three (2.6%) cases of mesh erosions (two anterior and one posterior), 2 cases (1,7%) with de novo prolapse of the contralateral vaginal (anterior) wall and only two cases of recurrent prolapse (1,7%) of the same vaginal wall
Presence of dyspareunia and pelvic pain was analyzed separately and was not significant higher post operatively.
We conclude that in skilled hands vaginal prolapse surgery using mesh materials is a safe way of surgical repair with a relatively low complication rate, good results, subjectively (quality of life) and objectively (anatomical) and with a low recurrence rate. In this study we also demonstrated no difference between results of normal weight mesh and light weight mesh.

Pre-operative and post-operative stages of vaginal prolapse

POP-Q	Pre-operative N =115	Six months N=104	Change	One year N=86	Change
Ba	1,24 (2,86)	-2,94 (0,44)	4,18[a]	-2,98	0,04
C	-2,41 (3,67)	-6,79 (0,57)	4,38[a]	-6,72	-0,07
D	-3,19 (4,19)	-7,68 (0,79)	4,49[a]	-7,42	-0,26 (p=0,006)
					-0,05
Bp	-0,17(2,68)	-2,98 (0,14)	2,81[a]	-2,93	0,97 (p=0,04)
TVL	8,10 (1,25)	8,58 (1,46)	-0,48[a]	8,83	
Parietene	N = 83	N = 70		N = 49	
Pop-Q stage					Succesrate
Anterior	N = 25	N = 25	Succesrate	N = 17	100%
0	0	24 (34,3%)	98,6%	17 (34,7%)	
I	1 (1,2%)	0		0	
II	2 (2,4%)	1 (1,4%)		0	
III	20 (24,1%)	0		0	
IV	2 (2,4%)	0		0	
					Succesrate
Posterior	N = 26	N = 26	Succesrate	N = 17	98,0%
0	0	24 (34,3%)	98,6%	16 (32,7%)	
I	1 (1,2%)	1 (1,4%)		0	
II	9 (10,8%)	1 (1,4%)		1 (2,0%)	
III	14 (16,9%)	0		0	
IV	2 (2,4%)	0		0	
					Succesrate
Total	N = 19	N = 19	Succesrate	N = 15	100%
0	0	19 (27,1%)	100%	14 (28,6%)	
I	0	0		1 (2,0%)	
II	3 (3,6%)	0		0	
III	10 (12,0%)	0		0	
IV	6 (7,2%)	0		0	
Surgipro	N = 32	N = 31		N = 30	
Pop-Q stage					Succesrate
Anterior	N = 20	N = 20	Succesrate	N = 20	96,7%

0	0	20 (64,5%)	100%	19 (63,3%)	
I	0	0		0	
II	3 (9,4%)	0		1 (3,3%)	
III	13 (40,6%)	0		0	
IV	2 (6,3%)	0		0	
					Succesrate
Posterior	N = 3	N = 3	Succesrate	N = 2	100%
0	0	3 (9,7%)	100%	2 (6,7%)	
I	0	0		0	
II	2 (6,3%)	0		0	
III	1 (3,1%)	0		0	
IV	0	0		0	
					Succesrate
Total	N = 9	N = 8	Succesrate	N = 8	96,7%
0	0	7 (22,6%)	93,6%	7 (23,3%)	
I	0	0		0	
II	5 (15,6%)	2 (6,4%)		1 (3,3%)	
III	3 (9,4%)	0		0	
IV	0	0			

[a] P-level <0,001 (paired-samples t-test)
anatomical succes defined as POP-Q stage 0 or 1.

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Is this a clinical trial?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**Medical ethics committee Albert Schweitzer hospital Dordrecht the Netherlands**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**