TABLE 6. *Quality-of-life (3 months) SF-12 Domains (means ± standard deviation)**

	Ventralex (n = 34)			Cabs'Air® (n = 36)		
	Preoperative	3 Months	*P*	Preoperative	3 Months	*P*
Physical functioning	62.46 ± 34.75	68.8 ± 33.0	NS	59.64 ± 43.84	77.6 ± 32.5	0.001
Role limitation resulting from physical health	64.47 ± 24.46	61.3 ± 23.1	NS	64.32 ± 38.22	78.1 ± 20.4	0.01
Bodily pain	62.58 ± 23.84	72.0 ± 24.3	NS	62.34 ± 28.76	83.0 ± 21.3	0.001
General health	66.74 ± 18.15	68.4 ± 16.4	NS	65.48 ± 34.15	70.0 ± 19.5	0.01
Vitality	47.25 ± 19.74	51.0 ± 1.9	NS	47.44 ± 24.37	55.0 ± 21.4	0.5
Social functioning	76.45 ± 25.48	76.9 ± 26.3	NS	72.71 ± 29.46	87.1 ± 18.8	0.001
Role limitation resulting from emotional health	72.22 ± 24.37	75.1 ± 23.1	NS	73.29 ± 31.18	83.5 ± 18.9	0.001
Mental health	65.34 ± 17.84	71.4 ± 18.3	NS	64.34 ± 16.7	72.9 ± 18.8	0.01
Physical component	0.23 ± 4.4	0.66 ± 0.81	NS	69.36 ± 28.3	0.76 ± 0.68	0.001
Mental component	0.67 ± 0.82	0.24 ± 0.91	NS	0.68 ± 0.43	0.36 ± 0.74	0.001

* Comparison between the two groups of patients (SF-12 domains) comparing preoperative visit and Month 3 using Student's *t* test.
NS, nonsignificant.

8 cm *vs* 7 to 9 cm). The placement of the Cabs'Air® mesh appears easiest and quickest ($P = 0.01$), which supports the high surgeon satisfaction rate. At 1 month of follow-up, there was less pain and discomfort ($P = 0.01$) in the Cabs'Air® group with a higher patient satisfaction rate (94 *vs* 83%) confirmed in all domains of the SF-12 questionnaire. The mean follow-up of the study was 3 years. The majority of Ventralex® complications occurred after 1 year. They can be attributed to the characteristics of the device: smaller size, lack of deployment, and poor or no fixation. According to Muyssoms,[23] recurrences should be correlated with shrinkage of the mesh. He reports a case in which the Ventralex® Hernia Patch had a dimension of approximately 3.0 cm in diameter. This correlates to shrinkage from a starting diameter of 6.4 cm (77.9%). The advantage of the Cabs'Air® device (complete deployment with the balloon; peripheral fixation with two or four sutures, absence of straps for positioning the device) accounts for the easy, quick, and secure placement and deployment. Fixation avoids shrinkage and perfect spreading avoids adhesion to the peritoneal viscera. The difference between results for the two study populations appeared at 3 months of follow-up: less pain, less discomfort, and better QoL when measured by the SF-12 questionnaire. The difference between the two devices compared in this study increased with the follow-up time: three recurrences at 2 years, four recurrences at 3 years, and 21 per cent of late complications with six cases of explantation. We do not have any experience and there is no publication concerning the use of new Ventralex™ ST (Davol Inc.), which is an all lightweight polypropylene mesh with composite Seprafilm® coating.

The main limitation of the present study included the small patient population (n = 83) although findings were statistically significant. In addition, recurrence may be asymptomatic and, consequently, only detectable during ultrasound examination. Because six (7.2%) patients did not attend follow-up visits, it is possible that some recurrences were not detected.

Conclusion

The results of this study show that use of the bilayer dual round prosthesis with open limited access offers a simple and efficient means of repairing small abdominal wall hernias. The early results are favorable. The use of a device as Cabs'Air®, which allows the balloon for controlled deployment and good fixation, increases at 3 months (pain, discomfort and QoL and decreases the risk of late recurrences or complications). It has been shown that the high percentage of recurrences and the late complications rate with the Ventralex® Hernia Patch are the consequence of poor spreading, associated with shrinkage that accounts for the associated severe pain, mass syndrome, feeling of a foreign body, adhesion, mesh infection, and a higher rate of recurrences. The characteristics of the Cabs'Air®

TABLE 7. *Complication during Follow-up*

	Ventralex® (n = 38)		Cabs'Air® (n = 39)		*P* Value
Mean follow-up (months)	36	(10–54)	36	(8–53)	NS
Mesh infection	1	(2.6%)	0	0%	NS
Bowel obstruction	1	(2.6%)	0	0%	NS
Severe pain (VAS > 60)	6	(15.7%)	0	0%	0.01
Mass sensation	6	(15.7%)	0	0%	0.01
Feeling body foreign	6	(15.7%)	0	0%	0.01
Total comorbidity	8/38	(21.05%)	0/39	0%	0.01
Recurrence	4	(15.7%)	0	0%	0.01
Reoperation (explantation)	6	(15.7%)	0	0%	0.01

VAS, visual analog scale; NS, nonsignificant.