OP18

Overview of hospital management of patients treated with thoracic endovascular repair (TEVAR) and revascularization of the left subclavian artery in France based on the PMSI

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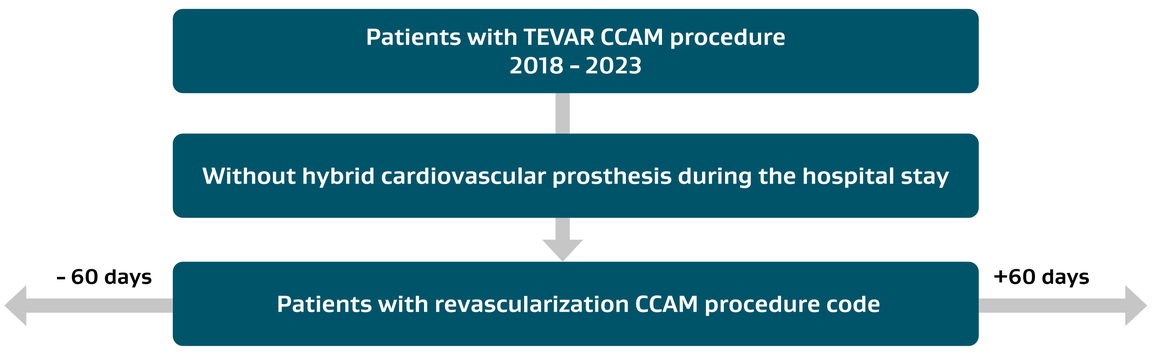
INTRODUCTION

Endovascular repair of the thoracic aorta (TEVAR) is indicated for pathologies such as aneurysms and dissections of the descending thoracic aorta and is combined with revascularization surgery of the left subclavian artery (LSA) when anchoring the stent graft in the aortic arch requires coverage of the LSA ostium. These 2 procedures can be performed simultaneously or consecutively. New endoprostheses are gradually entering the French market, permitting TEVAR and LSA revascularization to be performed in a single, endovascular procedure. This study aimed to describe the current hospital management of patients undergoing combined TEVAR and LSA revascularization in France between 2018 and 2023, based on PMSI-MCO data.

METHODS

All adult patients undergoing a CCAM TEVAR procedure and a CCAM LSA revascularization procedure concomitantly or within 60 days before or after the TEVAR procedure between 2018 and 2023 were identified in the PMSI-MCO database. Patients treated with a hybrid cardiovascular prosthesis during the TEVAR stay were excluded. The attributes of the TEVAR and LSA revascularization stays, along with patient characteristics, were described. The indication for TEVAR was defined according to the presence of an ICD10 code for thoracic aortic aneurysm, aortic dissection or traumatic aortic injury as the principal (PD) or related diagnosis (RD). When none of these 3 indications appeared in the PD or RD, the indication was sought in the associated diagnoses (DAS).



RESULTS

Description of population = 1,044 patients

Patient's characteristics

Patients with emergency stay	Median age	Gender (men)
15.2%	67 years	71.4%

Main indications for TEVAR[a]

Aortic dissection	47.6% 497 patients
Thoracic aortic aneurysm	45.1% 471 patients
Injury of thoracic aorta	2.6% 27 patients
Others	5.6% 58 patients

9 patients had >1 indication"

Comorbidities[b]

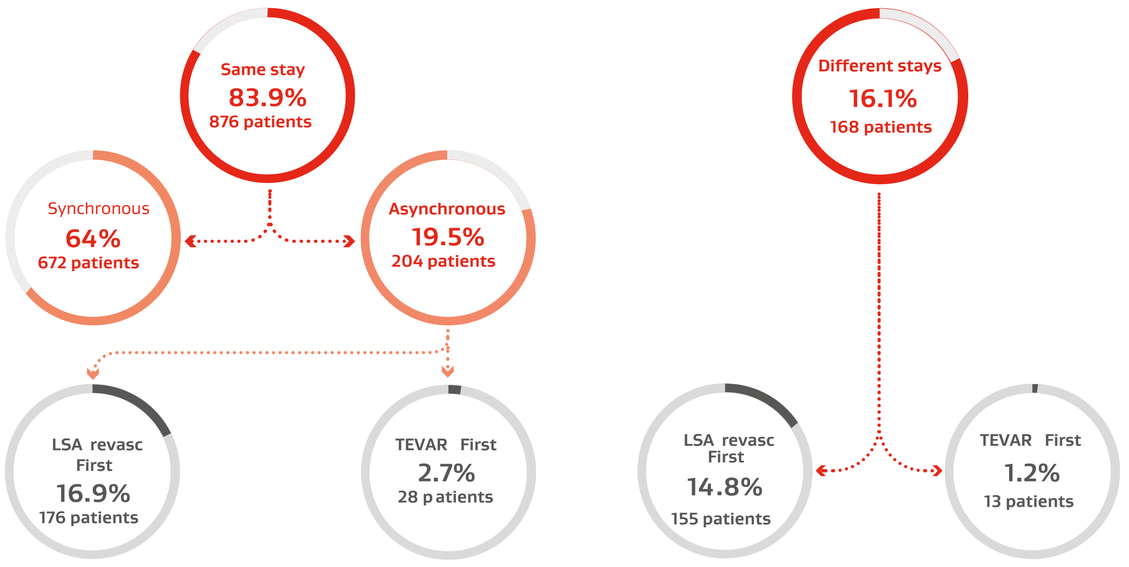
At least 1 comorbidity	92,4% 965 patients	
Hypertension	81,8% 854 patients	Chronic coronary disease 21,5% 224 patients
Pulmonary disease	31,3% 327 patients	Diabetes 13,6% 142 patients
Renal failure	30,6% 319 patients	Marfan syndrome 3,1% 32 patients
Atherosclerosis	26,2% 274 patients	Ehlers-Danlos syndrome 0,1% 1 patient

*Comorbidities identified in the 4 years prior to inclusion and in the 1 year following (except Ehlers-Danlos and Marfan syndromes: no time limit)

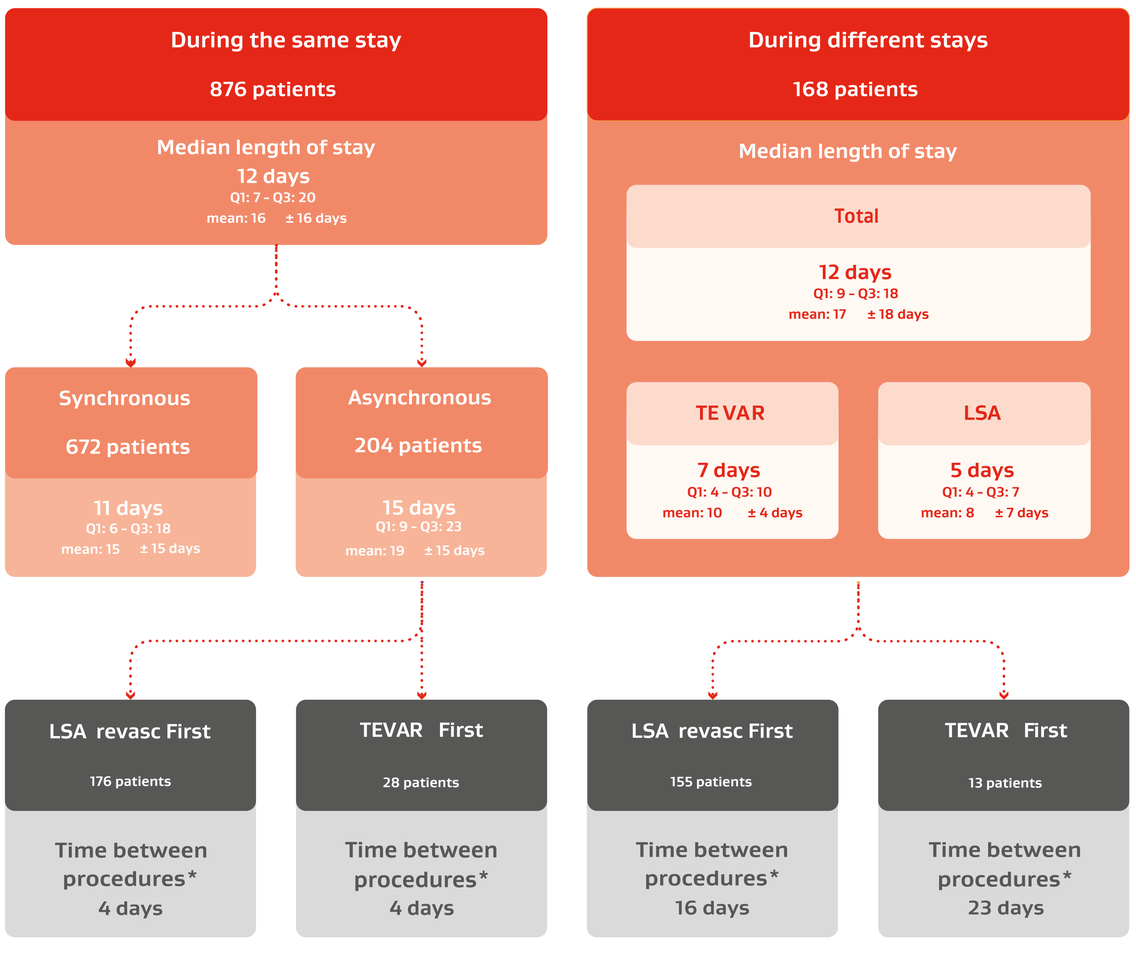
RESULTS

Description of hospital stay

The majority of stays took place in a public university hospital (80.1%) and over 84% of patients required a stay in intensive care (median duration 4 days; Q1 = 2; Q3 = 8).



Length of stay and timing of TEVAR and LSA revascularization procedures



* Distribution of time between TEVAR and LSA revascularization procedures.

ABBREVIATIONS

CCAM: Classification commune des actes médicaux; **LSA:** Left subclavian artery; **MCO:** Médecine, Chirurgie, Obstétrique; **PMSI:** Programme de médicalisation des systèmes d'information; **TEVAR:** Thoracic endovascular aortic repair.

Regulatory agreements

PMSI bases provided by ATIH, Data controller: W. L. Gore & Associés S.A.R.L.; Processing implementation officer: HEVA. Study registered under MR006 with the Health Data Hub on June 7, 2024 (Declaration of conformity n°2204866 v0 August 8, 2018).

CONCLUSION

These results allow for an assessment of the current management of patients undergoing thoracic endovascular repair requiring revascularization of the left subclavian artery and provide a better understanding of the potential impact of the arrival of these new fully endovascular technologies on the organization of hospital care, particularly through the reduction of the length of stay and/or the number of hospital stays.