

	Bridge PABV (n=23)	PABV alone (n=18)	Primary TAVI or AVR (n=140)	Medical treatment (n=72)
Age (years)	79±8	83±8	82±8	83±9
EuroSCORE (%)	35±21	39±24	25±12	31±17
Hospital survival (%)	100	67	88	86
One-year survival (%)	94±5	33±11	74±4	30±6

## 156

### Severe asymptomatic aortic valve stenosis. Value of the recently proposed parameters: deformation imaging, exercise and ventriculo arterial impedance.

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**Background:** Ventriculo-arterial impedance (ZVA) and Exercise echocardiography are new parameters proposed to best characterize patients with aortic valve stenosis (AS).

**Purpose:** we sought to compare the independent value of these new indices.

**Methods:** we analyzed these new indices in a large prospective series of 207 consecutive patients followed for a severe asymptomatic AS.

**Results:** The correlations between conventional indices of aortic valve severity, ZVA, and exercise stress echocardiography results were weak. We, then, can distinguish 4 distinct categories of AS patients according to ZVA and according to the result of the exercise stress echocardiography (figure).

**Conclusion:** ZVA as well as Exercise echocardiography can help but have limitations in the decision making in regard to the management of severe asymptomatic AS. Nevertheless, the decision to operate or not a supposed asymptomatic patient is still multiparametric.

	ZVA>5	ZVA<5
<b>EX ECHO+</b>	Syst BP 146±21 ZVA 7.8±2.4 Ex ZVA 4.7±1.9 LV EF 59±10 AEA 0.9±0.2 Mean PG 42±14 Ex Mean OG 68±8 LA area 18.6±5.8 E/e' 9.5±2.9 Ex E/e' 11.3±6.2 Radial 2DS 34±17 Circum f 2DS -14.8±5.6 Long 2DS -15±3 <b>N=76</b>	Syst BP 139±16 ZVA 4.2±0.6 Ex ZVA 4±1.2 LV EF 61±9 AEA 0.9±0.2 Mean PG 45±18 Ex Mean PG 62±8 LA Area 20±10 E/e' 11±3 Ex E/e' 11±5 Radial 2DS 28±7 Circum f 2DS -13±4.5 Long 2DS -15±3 <b>N=79</b>
<b>EX ECHO-</b>	Syst BP 144±20 ZVA 7.0±1.6 Ex ZVA 5.1±2.3 LV EF 67±8 AEA 0.8±0.2 Mean PG 48±17 Ex Mean OG 51±19 LA area 19±5.1 E/e' 11.7±5.2 Ex E/e' 14±7.7 Radial 2DS 33±12 Circum f 2DS -14±4 Long 2DS -16±5 <b>N=29</b>	Syst BP 142±20 ZVA 4.0±0.7 Ex ZVA 4.4±1.6 LV EF 68±8 AEA 0.9±0.2 Mean PG 42±14 Ex Mean G 51±18 LA 22±5.7 E/e' 11±3 Ex E/e' 11±5 Radial 2DS 28±7 Circum f 2DS -13±5 Long 2DS -15±3 <b>N=23</b>

Characteristics of the patients

## 157

### Percutaneous femoral implantation of aortic valve prosthesis without surgical cutdown. A single center experience.

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**Purpose:** Femoral transcatheter aortic valve implantation (TAVI) is usually done by surgical cut down under general anesthesia. Complete percutaneous approach has become widely accepted in endovascular management of aortic disease, and we have decided to apply this technique for TAVI. We aimed to evaluate the impact of the sheath size on safety and efficacy of this technique.

**Method:** The study cohort included 64 consecutive patients who underwent femoral approach using Prostar XL device at our institution between Mar 2008 and Feb 2010. The cohort was divided into two groups: group 1, 18 or 19 Fr sheath (1 Prostar XL device) and group 2, 22 or 24Fr (2 Prostar XL). The iliac and femoral angiogram was obtained before insertion and after removal of the sheath using contralateral approach. Device success was defined as immediate hemostasis without surgery or death related to access site during hospital stay.

**Results:** Clinical characteristics were similar in both groups (83.6±5.7 years, male gender 50% and logistic Euroscore 25.3±11.0%) besides higher rate of hypertension (81.0% vs 56.1%; p=0.03) in group 1.

In group 1, Corevalve was used in 14 cases and Edwards valve in 9 cases. In group 2, 22 Fr sheath was used in 22 cases and 24Fr in 19.

The angiogram showed smaller femoral artery diameter in group 1 (7.7±1.2 vs 9.0±0.9mm; p=0.001 and common iliac artery 9.4±1.4 vs 11.5±1.8mm; p=0.001), a lower calcium score (0.6±0.8 vs 1.1±0.7; p=0.034) and tortuosity score (0.6±0.7 vs 1.2±0.7; p=0.001). Device success was achieved in 100% in group 1 and 95.1% in group 2 (p=ns). The rate of iliac artery perforation or rupture was lower in group 1 (0% vs 9.8%; p=0.044). Death due to access site complication was observed only in 1 case in group 2 (p=ns).

**Conclusion:** Thanks to the development of lower profile devices, percutaneous approach for femoral arterial access is emerging as a promising method for TAVI and will decrease the need for general anesthesia in this high risk patients.

## 158

### Prothetic abscess complicating Infective endocarditis

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The cardiac abscess formation is appraised to 20-30% during the infectious endocarditis (IE). It is more frequent during prosthesis endocarditis and it can reach 60%. The prognosis is generally reserved. Objective To determine echocardiographic, bacteriological and evolutive features of prothetic IE complicated of abscess.

Retrospective study including 51 patients having certain or probable IE according to Duke criterias between 2002 and 2005. At 9 patients (17,64%) the endocarditis was complicated of prothetic abscess. It was about 6 men and 3 women with a middle age of 39 ±years. IE was late IE in 5 cases. Clinical and biological infectious syndrome was constant. Isolated germs were staphylococcus aureus in 2 cases, GRAM négatif Bacillus in 2 cases. Culture negative endocarditis were noted in 5 cases. Brucellosis serology was positive at one patient. Prothetic abscess was diagnosed by transthoracic echocardiography (TTE) at 2 patients and by transesophageal echocardiography (TEE) at all patients.

The abscess was localized on the aortic prosthesis at 5 patients, mitral prosthesis at 3 patients and mitroaortic prosthesis at one patient. TEE identified annular abscess at 2 patients and a myocardial abscess at 1 patient. Secondary septic localizations were noted at 6 patients: 4 cerebral abscesses, 2 splenic localization, a renal localization and an articular localization. High degree atrioventricular blocks were observed at 3 patients. The recourse to the surgery