

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 30814

Title: Assessment of aortic valve disease – a clinician oriented review

Reviewer's code: 02633655

Reviewer's country: Turkey

Science editor: Jin-Xin Kong

Date sent for review: 2016-10-23

Date reviewed: 2016-11-06

CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input checked="" type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Duplicate publication	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade D: Rejected	<input checked="" type="checkbox"/> Plagiarism	<input type="checkbox"/> Minor revision
<input type="checkbox"/> Grade E: Poor		[Y] No	<input type="checkbox"/> Major revision
		BPG Search:	
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		[Y] No	

COMMENTS TO AUTHORS

That is a very nice review about aortic valve diseases.

PEER-REVIEW REPORT

Name of journal: World Journal of Cardiology

Manuscript NO: 30814

Title: Assessment of aortic valve disease – a clinician oriented review

Reviewer's code: 00039411

Reviewer's country: Argentina

Science editor: Jin-Xin Kong

Date sent for review: 2017-01-10

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CLASSIFICATION	LANGUAGE EVALUATION	SCIENTIFIC MISCONDUCT	CONCLUSION
<input type="checkbox"/> Grade A: Excellent	<input type="checkbox"/> Grade A: Priority publishing	Google Search:	<input type="checkbox"/> Accept
<input type="checkbox"/> Grade B: Very good	<input checked="" type="checkbox"/> Grade B: Minor language polishing	<input type="checkbox"/> The same title	<input type="checkbox"/> High priority for publication
<input checked="" type="checkbox"/> Grade C: Good		<input type="checkbox"/> Duplicate publication	
<input type="checkbox"/> Grade D: Fair	<input type="checkbox"/> Grade C: A great deal of language polishing	<input type="checkbox"/> Plagiarism	<input type="checkbox"/> Rejection
<input type="checkbox"/> Grade E: Poor		<input checked="" type="checkbox"/> No	<input type="checkbox"/> Minor revision
	<input type="checkbox"/> Grade D: Rejected	BPG Search:	<input checked="" type="checkbox"/> Major revision
		<input type="checkbox"/> The same title	
		<input type="checkbox"/> Duplicate publication	
		<input type="checkbox"/> Plagiarism	
		<input checked="" type="checkbox"/> No	

COMMENTS TO AUTHORS

The article is interesting for a general practitioner or general cardiologist, but there are some concepts that should be corrected in my point of view: Aortic stenosis 1.1 "The natural history of AS is progressive but slow", I suggest "Aortic stenosis is a slowly progressive disease" 1.2 and "tarvus et parvus", it should be "tardus et parvus" 1.2.1 (Echocardiography) DLVOT measurement is performed from the inner anterior edge to the inner posterior edge of the LVOT ("inner-edge to inner-edge"), should be added "in mid-systole" 1.2.1.1 ("paradoxical" severe AS, where the anatomical AVA is >1 cm²). I think it is not correct, "paradoxical severe AS" refers to an severe AS with low flow and normal EF, not to an anatomical AVA >1 cm². The situation the author refers is "pseudo-severe AS", situation in which there is a non severe AS with area less than 1 cm² but because of low EF but not cause by a real AS (this is correctly explained in figure 3 of this manuscript) 1.2.2 "Establishing the presence or absence of symptoms can be difficult because many older patients (the majority of patients with AS) deny the presence of symptoms due to lifestyle adaptations to lower functional needs."

I suggest to add that also older patients refer usually symptoms ("fatigue") that can be vague, related to AS or to other comorbidities related with advanced age but not caused by AS. TABLE 2. "Low-flow/low-gradient/Low-LVEF severe AS with proof of contractile reserve presence" AHA/ACC guideline "IIa regardless of the presence of contractile / flow reserve": I don't think the guideline defines that. It assesses that : "Some patients without contractile reserve may also benefit from AVR, but decisions in these high-risk patients must be individualized because there are no data indicating who will have a better outcome with surgery" (page e78 of the guideline) "- Velocity 4 to 5 m/s or mean gradient 40 to 60 mmHg AND severe valvular calcification AND stress test demonstrating reduced tolerance or drop in blood pressure." Actually, the guideline says "- Velocity 4 to 4,9 m/s or mean gradient 40 to 59 mmHg AND severe valvular calcification AND stress test demonstrating reduced tolerance or drop in blood pressure." "Truly asymptomatic severe AS (no symptoms during treadmill test, no risk criteria) with preserved LVEF if the surgical risk is deemed low and 1 or more of the following criteria are also satisfied: - severely increased BNP / Nt-ProBNP levels at serial determinations and without an alternative explanation; - increased transaortic pressure gradient at stress echocardiography by >20 mmHg; - excessive LV hypertrophy without an alternative explanation. " I didn't find a IIa indication in AHA/ACC guidelines for this condition. "The 1- and 5-year mortality rates for asymptomatic severe AS with preserved LVEF are 7.8% and 26.4%, respectively". I think there is a mistake, 7,8% is the mortality of the hole cohort, not at 1 year. "In a recent study, the presence of a resting transaortic pressure gradient of >35 mmHg that increased by >20 mmHg during exercise was encountered in all patients who developed MACE within the following 2 years. In this study, the best prognosis was encountered in patients with a resting transaortic gradient of <35 mmHg that increased by >20 mmHg during exercise (10% MACE at 2 years), whereas patients with an increase in transaortic pressure gradient of <20 mmHg had intermediate prognosis (20% MACE at 2 years in patients with a resting transaortic pressure gradient of <35 mmHg, and 50% MACE at 2 years in patients with a transaortic pressure gradient of >35 mmHg)." I think this paper should be explained better to show the worse prognosis for those with an increase in mean gradient more than 20 mmHg during exercise test. 2.3 "Currently, the only established treatment for AS is AVR." I think this opinion is "too strict, taxactive". As the author discusses