differential clinical diagnosis, like transfusion associated circulatory overload (TACO), have been ruled out.

As a conclusion, we recognize that blood transfusion derivatives can trigger episodes of severe respiratory insufficiency, but their relation to ARDS with DAD is still unknown. It is evident that improving the diagnosis accuracy seems to be an initial and basic requirement to enhance the efficacy and effectiveness of future treatment.

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Aspirin desensitization in patients with coronary artery disease: Cost savings☆

Desensibilización al ácido acetilsalicílico en pacientes con cardiopatía isquémica: ahorro de costes

Dear Sir,

Antiplatelet drugs play a key role in the management of ischemic heart disease and other diseases, exerting their effects though different pathways. The most useful of these drugs in application to coronary disease are the cyclooxygenase inhibitors: acetylsalicylic acid (ASA, aspirin), which is the most widely studied and used substance,[1] and triflusal; and the P2Y12 antagonists: ticlopidine, clopidogrel, prasugrel and ticagrelor.

According to the current ischemic heart disease guides, in allergic patients were ASA is necessary, a rapid desensitization protocol must be applied,[2] involving the administration of increasing doses of the drug until tolerance is achieved. Different rapid desensitization protocols have been described,[3–5] with a duration of 2–5 h, that can be used in unstable patients, with excellent efficacy and safety.

Despite the lack of clinical evidence to the effect (since no studies have suppressed the use of ASA), in patients who are hypersensitive to nonsteroidal antiinflammatory drugs and suffer confirmed chronic ischemic heart disease (detection of coronary atherosclerosis by computed axial tomography or positive ischemia testing), it is common to empirically prescribe triflusal or clopidogrel in monotherapy. In the event of percutaneous coronary intervention with the placement of a stent, even double-dose clopidogrel (or the prescription of prasugrel–ticagrelor) during one year has been used. In patients with acute coronary syndrome, dual antiplatelet treatment with triflusal and a P2Y12 inhibitor has been used on an empirical basis.

From the pharmacoeconomic perspective, ASA desensitization in patients with ischemic heart disease is comparatively less expensive in the context of both monotherapy and dual antiplatelet treatment (Tables 1 and 2).

In monotherapy, the annual cost of clopidogrel or triflusal is respectively 1142.12% (218.13 vs 17.64€) and 662.76% (134.56 vs 17.64€) greater than the cost of ASA. These differences could greatly increase (between 1408.05 and 3778.23%) in the case of treatment during the first 1–6 months with prasugrel (cost between 266.02 and 515.52€) or ticagrelor (cost between 294.12 and 684.12€), followed by clopidogrel, as recommended by some guides.[2]

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Table 1 Prices and treatment costs of the different antiplatelet drugs.

	Container price	Posology	Cost/day	Cost/month	Cost/year	Difference versus ASA
ASA 100 mg	1.45 €/30 tabl	100 mg/day	0.048 €	1.45 €	17.64 €	–
Triflusal 300 mg	5.53 €/30 tabl	600 mg/day	0.369 €	11.06 €	134.56 €	+662.76%
	9.23 €/50 tabl					
Clopidogrel 75 mg	16.81 €/28 tabl	75 mg/day	0.600 €	18.01 €	219.13 €	+1142.12%
	30.02 €/50 tabl	150 mg/day	1.201 €	36.02 €	438.26 €	+2384.24%
Ticlopidine 250 mg	6.24 €/20 tabl	500 mg/day	0.624 €	18.72 €	227.76 €	+1191.03%
	15.60 €/50 tabl					
Prasugrel 10 mg	63.38 €/28 tabl	10 mg/day	2.264 €	67.91 €	826.20 €	+4583.25%
Ticagrelor 90 mg	89.61 €/56 tabl	180 mg/day	3.200 €	96.01 €	1168.13 €	+6521.43%

Prices referred to Spain and updated in August 2016.

Table 2 Annual cost per patient of the dual antiplatelet drug combinations.

	ASA	Triflusal	Clopidogrel	Ticlopidine	Prasugrel	Ticagrelor
AAS	–	152.20 €	236.77 €	245.40 €	845.84 €	1185.77 €
Triflusal	152.20 €	–	353.69 €	362.32 €	962.76 €	1302.69 €
Clopidogrel	236.77 €	353.69 €	–	446.89 €	1047.33 €	1387.26 €
Ticlopidine	245.40 €	362.32 €	446.89 €	–	1055.96 €	1395.89 €
Prasugrel	845.84 €	962.76 €	1047.33 €	1055.96 €	–	1996.33 €
Ticagrelor	1185.77 €	1302.69 €	1387.26 €	1395.89 €	1996.33 €	–

Prices referred to Spain and updated in August 2016.

At present, the only dual antiplatelet treatment protocol recommended by the current guides is ASA plus a P2Y12 inhibitor.[2] As a result, in patients allergic to ASA, desensitization to the latter drug is indicated for correct treatment, and this is moreover the least expensive option (Table 2). As an example, ASA plus clopidogrel has an annual cost per patient of 236.77 €, which is far lower than in the case of the rest of the possible dual antiplatelet treatment combinations.

In conclusion, ASA is the option with the greatest supporting clinical evidence and lowest cost for the treatment of ischemic heart disease. Acetylsalicylic acid desensitization is required in patients who are allergic to the drug, indistinctly of whether it is prescribed as monotherapy or in the context of dual antiplatelet treatment. Close coordination is required among the Departments of Allergic Diseases, Cardiology and Intensive Care Medicine in order to develop protocols adapted to the needs of each center, with a view to optimizing the management of these patients.

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