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Case Report

Reversal of intolerance of Sacubitril-Valsartan by cessation of Tamsulosin in an 85 year old patient with class IV heart failure

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Abstract

We report on an elderly patient with dilated cardiomyopathy and class IV Heart Failure (HF). He was intolerant to Sacubitril-Valsartan (S-V) due to prolonged symptomatic hypotension - in our means induced by an interaction between Tamsulosin (TAM) and S-V. After cessation of TAM the S-V could be administered followed by a great improvement in the patient's HF status to NYHA class II. Elderly patients with HF have to be checked carefully for drug interactions, especially for those influencing blood pressure. It is important to establish S-V in symptomatic HF, because this could improve findings and symptoms even in the sickest and oldest patients.

Introduction

Current approaches for the therapy of benign prostatic hyperplasia in older men include the administration of α1-adrenoreceptor antagonists (for example TAM) [1]. As HF is also predominant in the elderly a lot of patients were treated with both: TAM and rennin-angiotensin blocking or newer agents such as S-V. In this regard it has been shown in a large multicentre trial, that the latter one was superior to enalapril in terms of survival and quality of life [2]. Therefore current guidelines recommend switching from an ACE inhibitor or AT1 blockers to S-V whenever possible. Especially elder men often have benign prostate hyperplasia and heart failure and receive drugs against both conditions. Therefore physicians should be aware on possible interactions. We found it especially necessary to publish this case report because a PubMed search combining Tamsulosin & Sacubitril yielded zero results.

Description of the Case

We report on an 85 year old man with ischemic cardiomyopathy. He was followed in our institution since 2000 when he was one of the first patients receiving Cardiac Resynchronization Therapy (CRT) at the age of 69. He was very stable remaining in NYHA class II until 2016 when he decompensated several times with hospitalizations. Severe mitral regurgitation was treated with mitral clipping with a good echocardiographic result. CRT function was regular. Despite the intervention he deteriorated further, his ejection fraction dropped from 35% to 10%. He loses weight from 80 to 58 kg (1.75 m in height), becoming cachectic. He felt so sick, that we talked about palliative care and deactivation of the implanted CRT defibrillator. The AT1-Receptor Antagonist (AT1-RA) Candesartan which was given in a very low dosage of 1mg at last has to be stopped due to low blood pressure, and - not surprisingly - a desperate trial with S-V (1/2 Tablet of 24/26 mg) was first unsuccessful due to symptomatic and prolonged hypotension (RR <80/60 mmHg). The patient could not stand up for 48 h, but insisted to stay at home. A critical review of his current medication has revealed that he also received TAM - prescribed from his home physician - at a dosage of 0.4 mg daily due to benign prostatic hyperplasia and slow urine flow. As hypotension is a known side effect

Table 1: Clinical data before and after cessation of TAM and start with S-V.

	Before	After
NYHA class	IV	II
Blood pressure (mmHg syst/diast)	80/60	105/70
Nt-pro BNP (pg/ml)	25000	2870
LVEF (%)	10	25
Weight (kg)	68	75
Creatinine (mg/dl)	2.2	1.8

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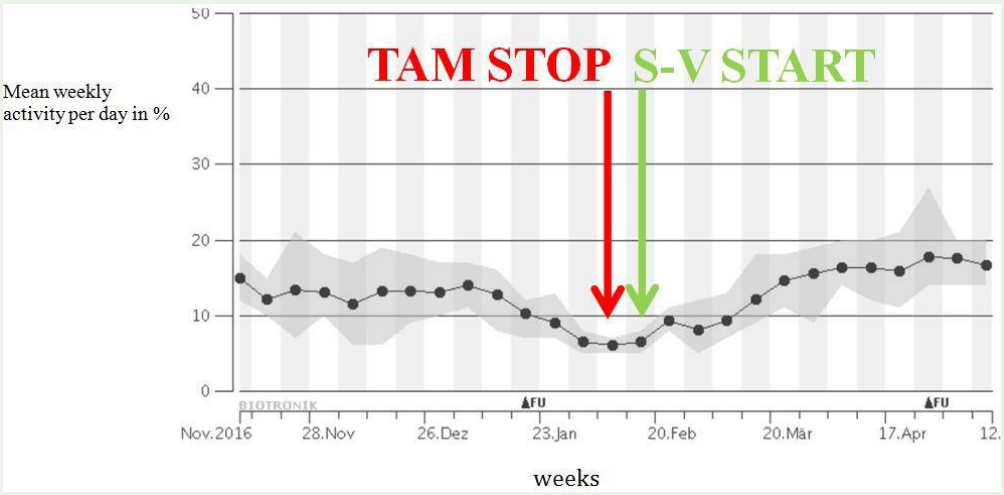

Figure 1: Activity log (mean weekly activity per day in %) of the patients CRT defibrillator (Iforia 3 HFT, Biotronik Corp.) showing a decrease before and an increase in activity after cessation of TAM and after introduction of S-V.

of TAM [3] we speculate that this might be the reason of AT1-RA and S-V intolerance. Accordingly after cessation of TAM blood pressure increased above 100 mg HG systolic. Now a starting dosage of S-V consisting of ½ tablet of the 24/26 mg preparation was tolerated. After that the clinical status of the patient improved rapidly from NYHA class IV to NYHA class II accompanied by a drop in nt-pro-BNP levels (Table 1) and a marked increase in activity as detected by his implanted defibrillator sensor (Figure 1). S-V could be increased up to 24/26 mg twice daily.

Discussion

This case report shows that in elderly patients with critical heart failure the prostate specific α1-adrenoreceptor antagonist TAM can interact with AT1-RA and S-V yielding in very low blood pressure preventing their administration. In that situation it has to be critically judged between benefits and risks of cessation of TAM. In our case cessation of TAM allows successful application of S-V and recovery to NYHA II class. He felt no change in urine flow. Or in provocative terms: the heart is more important than the prostate?

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