ESC/ERS GUIDELINES AND DETECT ALGORITHM RECOMMENDATION IN PULMONARY ARTERY HYPERTENSION ASSOCIATED TO SCLERODERMA. A REAL LIFE COMPARISON

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Background: Pulmonary arterial hypertension (PAH) is one of the most common Sistemic Sclerosis (SSc) related cause of death. Right heart catheterisation (RHC) is the gold standard to detect a PAH. Nevertheless RHC is an invasive diagnostic procedure not always accepted by patients. The European Society of Cardiology/European Respiratory Society (ESC/ERS) has suggested several consensus guidelines to identify high risk PAH subjects. ESC/ERS RHC recommendation are based on patients’ symptoms and echocardiographic parameters such as tricuspid regurgitant jet (TR) velocity and right atrium (RA) area. Recently the DETECT study has presented an evidence-based detection algorithm for PAH in SSc. The DETECT algorithm is divided in two steps determining referral to RHC. In the first one non ecocardiographic tests (FVC/DLCO ratio, current/past telangiectasias, serum ACA, serum NTproBNP, serum urate and right axis deviation on ECG) are taken into account. TR velocity and RA are the echocardiographic parameters assessed in step 2.

Objectives: To compare RHC recommendations according to ESC/ERS guidelines and DETECT algorithm in a group of SSc patients followed up in our rheumatological clinic.

Methods: We included 39 consecutive patients admitted to the Unit of Internal Medicine and Rheumatology of the University Hospital Parma (Italy) between April and October 2013. Each patient had a SSc diagnosis (according to the EULAR/ACR classification criteria) established three or more years ago and was assessed with the above mentioned nonechocardiographic and echocardiographic tests.

Results: Table 1 shows patients with RHC recommended (or not) according to ESC/ERS guidelines and DETECT algorithm. A concordant recommendation was found in 61.5% of patients; 20.5% of patients had a RHC recommended only by ESC/ERS guidelines while 18.0% of patients had a RHC referral according to DETECT algorithm. Moreover 15.4% of patients met ESC/ERS criteria for RHC but had not a referral to echocardiography conforming to DETECT algorithm. Pretty much the same ESC/ERS RHC referral was noticed in patients with a DETECT Step2 score > 44.

Conclusions: In our cohort of patients we observed a RHC recommendation concordance between ESC/ERS guidelines and DETECT algorithm in less than two-thirds of patients. In the near future DETECT algorithm validity should be carefully assessed to have unambiguous evidence-based guidelines to identify PAH high-risk SSc patients.

Table 1

<table>
<thead>
<tr>
<th>ESC / ERS guidelines</th>
<th>DETECT algorithm</th>
<th>RHC recommended</th>
<th>RHC non recommended</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>RHC recommended</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>RHC non recommended</td>
<td>8</td>
<td>710</td>
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