statistical analysis. The method presented may be used for evaluation of speech disorders in larger groups of children.

Discussion
Sibilants are produced in the sibilant slot between the tongue apex and the palatal surface of upper incisors. Sigmatism was observed, as one might expect, with different orthodontic anomalies, when there were severe protrusions or tremata present. In these cases the function of the tongue is impaired and consequently sigmatism occurs. The results of the presented study might be negatively influenced by difficult communication with children during recording in medical environment.

Conclusion
The study confirmed to some extent the role of the frontal segment of dental arch in sibilants pronunciation. Sibilant speech disorders might occur in patients with severe orthodontic anomaly of the frontal segment. In these cases one might recommend cooperation between an orthodontist and a logopaedist. In this study was presented the evaluation of speech disorders by the means of recording and FFT analysis.

References

Objective
The aim of our study was to analyse quantitative characteristics of perfusion and function of left ventricle new program 4D-MSPECT using.

Methodology
8-frame gating was used to collect data from stress/rest To-99m MiBi or Tl-201 on 2-detecting camera Siemens e. cam. To date there are 205 coronaryographic tested patients registered where software 4D-MSPECT was used for evaluation: 66 women and 139 men average age 61 years (39–83), 61 patients after myocardial infarction and 44 after previus revascularisation. Quantification of perfusion defects: automatic determination of summing stress score (SSS) using 20 segmental model of left ventricle and 5 point scale, where 0 = normal perfusion (2 SD) and 4 = absence of radioisotope trapping (6 SD). Data recorded by ECG-gated SPECT were automatically processed by programme 4D-MSPECT to determine the volume of left ventricle in end-diastole and systole and to quantify ejection fraction (EF).

Results
Coronanography was negative at 57 examined patients, restriction of arterial lumen more than 50 % was verified in 148 patients (disease of 1 artery at 51 patients, disease of 2 or 3 arteries at 49 or 48 patients). Visual evaluation of imagery showed the sensitivity and specificity of SPECT for detection of ischemic heart disease 95 % and 79 % and was not statistically different to the subset of patients who did not suffer myocardial infarction and at men and women (Tab. 1).

Quantitative analysis of the perfusion showed SSS values according to the number of afflicted arteries: SSS 8 at disease of 1 artery, SSS 14 and 16 for 2 or 3 arteries. In patients with negative coronaryography stress ejection fraction was 62 % and did not vary from rest EF. In patients with 1 artery disease average stress EF was 55.2 % and stress 57.3 % (variation about 2.1 %), at 2 or 3 artery disease stress EF was 50.6 % or 46.7 % at rest 55.3 % or 51.8 % (variation 4.7 % or 5.1 %).

Conclusion
Quantitative analysis of perfusion showed increasing SSS with cumulative count of afflicted arteries. Gated SPECT data evaluated by the programme 4D-MSPECT permitted identification of patients with stress aggravation of ejection fraction (postischemic stupor of left ventricle), and multivessel disease can be expected in these patients.

<table>
<thead>
<tr>
<th></th>
<th>Whole group</th>
<th>Patients without myocardial infarction</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>205</td>
<td>144</td>
<td>139</td>
<td>66</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>95 % (141/148)</td>
<td>92 % (82/89)</td>
<td>95 % (105/110)</td>
<td>95 % (36/38)</td>
</tr>
<tr>
<td>Specificity</td>
<td>79 % (45/57)</td>
<td>80 % (44/55)</td>
<td>76 % (22/29)</td>
<td>82 % (23/28)</td>
</tr>
</tbody>
</table>

Table 1. Characteristics of coronaryographic tested patients.