Thesis deals with studying of morphology and variability of palatal shape in patients with hemifacial microsomia. It is congenital facial disorder, manifests in hypoplasia and asymmetry of facial structures. It interfere with part of splanchnocranium,especially manifests at hypoplasia of mandible and facial asymmetry, ears or orbits can be another affects part of the face.
For notice morphology of palate was use virtual dental models of superior alveolar arch and palate of patients with HFM. Mean age of patients with HFM was 27,2 years (in range 20,8 – 41,5 years), mean age of control´s file was 13,2 years (in range 13,0 – 13,9 years). Every subjects, also from patient´s file and from control´s file are mens with Czech´s nationality. Models were evaluate by methods of geometrics morphometry (DCA, PCA, analysis asymmetry) and multidimensional statistic (Hotteling test, test of homogenity).
Palatal shape of patients with HFM and controls is significantly different. Palate of patients with HFM was narrower and shorter in anterior part while wider in posterior lateral part, especially at the left side relative to control´s file. We found out by evaluation asymmetry that palate of patients with HFM had the biggest asymmetry at back side of palate, by contrast, the biggest symmetry was at vertical middle line of palate and premaxila. We figured difference in palatal inclination and localization of maximal height of palate by compare of both files. Back part of palate of patients with HFM was below while front part was above. Maximal height of palate patients with HFM was at back part, while the maximal height of control file was at front part of palate. We demonstrate siginificant difference between both files in variability of shape and asymmetry by statistical treating.