



PAEDIATRIC DERMATOLOGY

A PRENATAL DIAGNOSIS

Massimo Guadagni⁽¹⁾

Centro Dermatologico Apuano, Dermatologia, Massa, Italy⁽¹⁾

Background: Prenatal diagnoses are very uncommon in dermatologists daily practice. Using a 3d virtualization imaging solutions a four months gestational age dermatological diagnosis was supposed starting from ultrasound foetal images. After delivery the diagnosis was confirmed.

Objective: Computer 3d virtual reality is widely used in many fields of the arts, sciences, advertisements, teaching. I tried to evaluate their applicability to a prenatal dermatological diagnosis.

Materials and Methods: Firstly a foetus of 4 months of age was created with MAKE HUMAN an human characters builder open source software. Then it was imported in BLENDER a virtual reality 3d open source software too.

Using scanner CANON LIDE 25 the ultrasound foetal images were acquired and the silhouette of the lesion was linked to them in BLENDER ambient.

Then using anatomic skull and brain point of interest this "solidified" images were located. Finally a virtual tour of the probe was made. The position of the silhouette of the lesion allowed to suppose the diagnosis.

One month after delivery the suggested diagnosis was confirmed.

Discussion images and animation were created with MACROMEDIA, TAKAISHU SKETCHES and IMOVIE.

RESULTS: The presence of a Dermoid Cyst of the lateral third eyebrow area was suggested from the ultrasound images elaborated in the 3d virtual reality during the 4-5 months prenatal age.

CONCLUSION: Our experience highlight the powerful of the virtual reality. I think that its broad use in dermatological diagnosis is still premature. I think that this case is unique but it is a forerunner of the future. The necessity to use these powerful items to teaching and communication is nevertheless mandatory.

