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ANTI - GLARE DEVICE FOR PHOTOGRAPHING GROSS ANATOMICAL SPECIMENS

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The proposed anti-glare model for photographing gross anatomical specimens consists of a cylindrical anti-glare light shaft of variable length made of thin white light-scattering fabric, on one end of which there is a rubber band for fixation and on the other one - a wire ring of rigidity.

The device can be used for anti-glare illumination of wet anatomical mounts during macrophotography.

The proposed device has a low cost price, small weight, dimensions, allows effective scattering of light, controls the intensity of illumination until the moment of photographing, reduces significantly the glare from the wet surfaces of the anatomical specimen, which helps to display the important parts of gross specimen in photographs, which, in turn, increases the quality of photographic images.

The closest analogue of the utility model is the umbrella disperser for pulse photographic illuminators (instructions for the Rekam Mini-Light Kit-2 kit, http://www.rekam.ru/details/640), which is an umbrella made of white nylon light scattering fabric located between a light source and a photographic object to scatter light beams and create a low contrast image. The disadvantages of the nearest analogue are: large size and high cost; the entrance of extraneous light to the object, causing unwanted glare from its wet surfaces; the need for two or more umbrellas (for uniform lighting of the object) and additional equipment (tripods and a light-synchronizer).

The common feature of the nearest analogue and the proposed utility model is that the structure of the device includes light-scattering fabric. The distinguishing feature of the utility model from the nearest analogue is that the device consists of a cylindrical anti-glare light shaft of variable length made of thin white light-scattering fabric, on one end of which there is a rubber band for fixation, and on the other one - a wire ring of rigidity. The goal of the utility model is to improve the anti-glare device for photographing gross anatomical specimens. The problem is solved by the fact that, in accordance with the utility model, in the structure of the device a cylindrical anti-glare light shaft of variable length made of thin white light-scattering fabric was installed and on one end of this there is a rubber band for fixation, while on the other one- a wire ring of rigidity.

While photographing wet mounts, two series of 25 photographs were produced, one of which was filmed with the help of the nearest analogue, and the second one - by the proposed device. In the comparative analysis, the proposed device gave better results: lack of glare, large depth of image sharpness, less power of the illuminators, saving work space, less time to take pictures.

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THE PROCESSES OF PROTEIN OXIDATIVE MODIFICATION IN FIBRINOID IN CALCIFICATION AREA OF THE CHORIAL PLACENTAL TREE ASSOCIATED WITH IRON DEFICIENCY ANEMIA OF PREGNANCY, THEIR HISTOCHEMICAL EVALUATION.

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Calcification, liming or petrification (an increased level of insoluble calcium salts deposits) of the placenta is a fairly widespread phenomenon, and placental calcification can often be found in combination with anemia of pregnancy.

The objective of the research is to define the levels of protein oxidative modification in fibrinoid in calcification area of the chorial placental tree of the placenta associated with iron deficiency anemia of pregnancy depending on the version of calcium deposits based on the histochemical technique of bromophenol blue into "acidic" and "basic" proteins by Mikel Calvo method with the quantitative evaluation of these results by means of computer microspectrophotometry.

In the course of our research 164 placentae with calcification were studied, the term of pregnancy of which was 29-40 weeks. 84 pregnant women were diagnosed with IDAP (I-II severity scale), including 40 gravidas with preterm labour and 44 gravidas with urgent labour. The rest of the pregnancy observations (80) had no signs of anemia and included 38 gravidas with preterm labour and 42 gravidas with urgent labour. The differences were traced in the chorial placental tree in the distribution frequency depending on the presence of IDAP for types II, III, IV of calcium deposits. The arithmetical mean of the R/B index in fibrinoid in the area of the chorial placental tree. According to the data given, in IDAP in the intervillous fibrinoid with calcium deposits of type II, the processes of protein oxidative modification are increasing in comparison with those without anemia. The same pattern has been observed for the intervillous fibrinoid with calcium deposits Type IV. At the same time, there was no statistical discrepancy in the average tendencies for the R/B index in the intervillous fibrinoids with calcium deposits Type III.

Conclusion. According to the histochemical study gravidas with iron deficiency anemia are characterized by fibrinoid with calcium deposits type II and type IV (fine-granular deposits) in chorial tree of the placenta where the protein oxidative modification processes increase as compared to the observations without anemia.