

ABSTRACT

Evaluation of The Magnetic Resonance Cholangiopancreatography Examination's Image Quality ; The Comparison Between Negative Oral Contrast Utilization and Non-Negative Oral Contrast Utilization

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Magnetic Resonance Cholangiopancreatography examination is an examination featured with many advantages in the detection of anatomical structures and abnormal pathological disorders in human pancreatobiliary system. This examination is recommended to use a negative oral contrast that aims to eliminate the signal of gastrointestinal system to be around pancreatobiliary tree which can be confounding visualization of pancreatobiliary tracts.

Has conducted quasy experimental research study by using negative oral contrast in MRCP examination with HASTEIRM and 3D sequences in MRI Unit at RSU Haji Surabaya by taking prospective data. Obtained 9 samples were examined with predetermined criteria and the same parameters and taken each of three slices of the each treatment. Result of images and forms that have been prepared and then evaluated by two radiologist who are competent with experience of working more than five years, and then the data is processed by using SPSS statistical software version 17 and is shown in the table distribution, charts, and diagrams.

The results of data processing, shown that black tea is more effective in depicting optimal image result at MRCP examination than pineapple juice and without using negative oral contrast. This is caused by negative oral contrast used in this study contains Mn (manganese) elements and included into the types of superparamagnetic agents. The content of metal element in the negative oral contrast can cause magnetic susceptibility which is characterized by shortening the relaxation times of T2. Therefore, T2-Shortening can darken (make hypointense) area distributed contrast agent depends on the concentration of metal ions in the T2-Weighting. Negative contrast agent affects the signal intensity usually by shortening the T2 or T2*. In effect, the region of interest (ROI) in particular area of the distributed negative contrast agent will appear as darken area.

Keywords : MRCP, negative oral contrast, pancreatobiliary system.

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