

Fasting brought into question as a factor influencing the quality of abdominal ultrasonography in children

O jejum como fator de influência na qualidade da ultrassonografia de abdome em crianças posto em questão!

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Sometimes, precepts of a practice seem to be so well established that one hardly sees them questioned. Such precepts end by becoming true “scientific dogmas” constituting a contradiction itself. In science, concepts (on which precepts are based) are coined on ideas requiring support from scientific experiments, and being reformulated by new ideas, new demands, technologies or realities. On the contrary, dogmas do not require scientific evidence and are based on faith.

One of the most rooted precepts of diagnostic ultrasonography is the need for fasting as a condition to guarantee the quality of abdominal studies, reducing the amount of gas within the gastrointestinal tract and allowing a satisfactory distension of the gallbladder⁽¹⁾. In most clinical centers, the preparation recommended for abdominal ultrasonography includes instructions for fasting during periods ranging from four to six hours for children⁽²⁾ and from six to 12 hours for adults⁽³⁾. The actual benefits from such procedure have rarely been questioned and have never been refuted.

Thus, the article developed by Rabelo et al.⁽⁴⁾, published in the present issue of **Radiologia Brasileira**, is extremely refreshing for the field of ultrasonography: by means of comparing the quality of images of abdominal ultrasonography of children with and without previous fasting, their study tests the abdominal preparation paradigm and, as a conclusion, relativizes the advantages generated by this practice.

Certainly, sonographers who perform ultrasonography in children have already been faced with the difficulty of getting minimally acceptable images because of the irritability condition of children after a long fasting period. A colleague, pediatric radiologist, defines a hungry child as “an adversary to be respected”... The word “adversary” defines the exact notion of the battle into which the procedure is transformed in such circumstances, and the winner almost never is the physician. Thus, frequently, we find ourselves compelled to yield and negotiating, preferring that the child be fed to allow us to take the control of the examination. Additionally, the child’s weep promotes a larger gaseous distension than that produced by the digestive process. Daily experiences in this field strengthen the conviction that, in children, the impairment of the abdominal

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sonographic images is closely related to factors other than only those on which fasting may have some influence.

Even the study of the gallbladder may be more impaired by the agitation of the child than by the previous ingestion of food. Most of times, the utilization of high-frequency transducers allows the diagnostic evaluation. And, there is always the possibility of reexamination, with preparation in non-conclusive cases. Under such point of view, fasting is no longer a standard to be followed, becoming an exception.

Notwithstanding the preliminary character of the study developed by Rabelo et al. on the variables that may influence the quality of sonographic images of children, the great contribution of the authors is to test the current precepts in the practice of pediatric ultrasonography, allowing an effective revision of concepts and scan techniques.

Finally, another not less important issue approached by the authors is the necessity of improving systems for evaluating sonographic images quality, allowing the development of more reliable interobserver studies. This is a relevant and neuralgic issue which cannot be shunned, even though it represents a true challenge!

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