EDITORIAL

Re-Assessing Intra-Partum Fetal Monitoring and Its Medico-Legal Implications

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It never ceases to impress that in 2018, intra-partum fetal monitoring has moved very little and very slowly from the originally 1960’s clinical introduction of cardio-tocography (CTG). Intra-partum CTG (I-P CTG) with regular changes of criteria changes, more or less still rules the roost. The time honored confirmation of an abnormal tracing by fetal measurements of ph and acid-base balance has been, under serious and repeated attack by a number of serious researchers. Yet, fetal blood sampling is still recommended by the RCOG in its guidelines, which also stress the fact that fetal hypoxia remains a major cause of perinatal death, neonatal morbidity and neurodevelopmental disability. These cases account for 38% of Medical Defense Union and Medical Protection Society in-cases the UK, where close to £200 million were paid out in 1998. We can also add that in 2011, ‘birth asphyxia’ comprised 50% of the UK NHS litigation costs, and in the 2000–2010 decade, the same NHS forked out £3.1 billion for maternity medico-legal claims (the highest of any specialty), mostly involving cerebral palsy and CTG misinterpretation.

The RCOG also stresses that, among the causes of high rates of CTG misinterpretation one finds difficulties of CTG recognition and interpretation, poor inter-observer error agreement and technical factors such as faulty leg plates, faulty electrodes and faulty monitors.

The fact that classification of CTG abnormalities, every so often, gets a shakedown when CTG monitoring has been existence since 1957, should perhaps switch on a red light. Such regular changes at the basic level of interpretations of CTG abnormalities raise the inevitable doubt as to whether “we’ve got it this time”? And one may also add – “if we have, will it make a difference to the clinical outcome?”

We do not think it unfair to state that the present situation of I-P CTG assessment of fetal well-being in labour, should switch on a myriad red lights clinically, at the NHS Litigation Authority and the UK Treasury.

A point which follows directly from above argumentation centers on the medico-legal application of I-P CTG in Court cases dealing with Cerebral Palsy, often empirically to result from second stage obstetric mismanagement. With the current proven limitation of I-P CTG in monitoring fetal well-being, it is not easy to displace the historical role of CTG in legal argumentation and Court jurisprudence. However, in this aspect at least, Cerebral Palsy litigation, ought, de rigueur to include the results of those investigations which are indispensable to establish a diagnosis of underlying neonatal hypoxic ischemic encephalopathy. This is the hallmark of the Cerebral Palsy case which may be due to potentially liable obstetric malpractice resulting from proven intra-partum hypoxia. And proven intra-partum hypoxia is not synonymous with neither a pathological CTG tracing – however visually worrying, nor to simple fetal blood ‘confirmation’.

This means that in addition to the abnormal CTG tracing, an Apgar score of less than 5 at 5 minutes and 10 minutes and an umbilical artery pH of less than 7.0 or a base deficit greater than or equal to 12 mmol/L or both, there should be neuroimaging evidence of acute brain injury as seen on brain magnetic resonance imaging (or magnetic resonance spectroscopy) and consistent with evidence of the presence of multisystem organ failure resultant from hypoxic–ischemia.

The medico-legal requirements can be implemented as of now, as all the evidence is there for all of good will who want to study it. The clinical re-thinking on I-P CTG is hardly likely to affect any major clinical changes in the foreseeable future of Intra-parum fetal monitoring. But, change, in one way or another it is a must, at some time or other.

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