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Short Communication

A Paediatric Magnetic Resonance Imaging Technique Substituting Fluid-Attenuated Inversion Recovery Time of the Ernst Angle on Protons Within Paediatric Anatomy to Removing the Need to Administer an Anaesthetic Newborns, A Short Communication.

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Abstract

Within the boundaries of extant Magnetic Resonance Imaging (MRI) technology for paediatric patients, after 30 days of age, an intravenous sedative is administered. MRI is a non-invasive imaging procedure that uses a powerful magnetic field and radiofrequencies and records neuro-anatomical structures at an anatomical target location. Imaging anatomical abnormal and normal tissues in specific cases necessitate accepting the risk of causing harm to an infant. This article explores the benefits of an MRI using an alternative to the imaging protocol [1,11].

Background

The risk is in administering the sedative, or a general anaesthesia. This is due to the need for the patient to remain still. The risk of a paediatric fatal event under anaesthesia is one in 300,000 per annum. While this a relatively low risk in itself, the extant conjecture annual growth rate (CAGR) is of concern [1]. Paediatric patients are on a significant incline because of the procedure becoming available to second and third world countries, more governments are subsidizing MRI procedures, and the value of MRI imaging over all other imaging techniques [1,2,4,7].

This article considers the ethics and plausible biomechanical solutions is in proposing a paediatric MRI capability that removes the need to administer a general anaesthesia to a newborn. Originally designed to protect stealth fighter jets from quantum radar detection, this technology could be utilized as a safer means to medically image newborns [3,11]. The third part of this series of short-communications details both the protocol and changes that focus on a significantly more advanced method of measuring the fluid-attenuated inversion recovery time.

TGEV	Porcine aminopeptidase N (pAPN)	Delmas., *et al.* 1992
PRCoV	Porcine aminopeptidase N (pAPN)	Delmas., *et al.* 1994b
FIPV	Feline aminopeptidase N (fAPN)	Tresnan., *et al.* 1996
FCoV	Feline aminopeptidase N (fAPN)	Tresnan., *et al.* 1996
CCoV	Canine aminopeptidase N (cAPN)	Benbacer., *et al.* 1997
HCoV-229E	Human aminopeptidase N (hAPN)	Yeager., *et al.* 1992
HCoV-NL63	Angiotensin-converting enzyme 2 (ACE2)	Hofmann., *et al.* 2005
MHV	Murine carcinoembryonic antigen-related	Williams 1991, Nedellec 1994

Table 1: Cellular receptors for coronaviruses.

The receptors in Table 1 are those for severe acute respiratory syndrome - 2, (SARS-2) each one a separate molecular compound with charges attributed able to their molecular structures [12].

The difference between the polarization of human tissues during an MRI is to differentiate between the Ernst angle of spin polarized protons and measure extant fluid attenuation inversion recovery times. This requires a newborn to be administered anaesthesia during imaging to keep them still so as to repeat the procedure as required under extant technological limitations [1,3,10-12].

The brain is surrounded by cerebrospinal fluid (CSF), which has roughly the same signal intensity on images as brain tissue. Pulse sequences makes hyperintense signals from water, turn hypointense (black) on T2 images while keeping lesions hyperintense and recognizable. This is consistent with other tissues in the body; their FLAIR signals are too similar for a single quarter-second image [5-7,9].

In measuring the fluid-attenuated inversion recovery time of the Ernst angle on protons within the human anatomy, several measurements are required, necessitating a radically more accurate technique.

'Celalettin's 1st Paradigm' expresses the behaviour of SARS-2 described by:

$$\prod_{\lambda = \Gamma} \left| \begin{matrix} e \\ \Gamma \end{matrix}^{\uparrow\downarrow} \right| \left| \begin{matrix} \\ h \end{matrix} \right| \left| \begin{matrix} \\ \lambda \end{matrix} \right|$$

..... (1)

And:

Γ = The SPEG electric dipole spin resonance frequency

λ = Free Electron Laser frequency

T = Tunnel

'Celalettin's 1st Paradigm' at Equation 1, can be used to measure the electric charges of the SARS-2 molecular constructs.

Conclusion

The paediatric 'Hand-Held Magnetic Resonance Imaging Device' (H2MRI) © in Part 2 and 3 of this Short Communication will further dissect and manipulate the paradigm in order to focus on the way in which extant MRI machines measure polarized Ernst angles on protons within anatomy. This could be engineered into a Hand-Held Magnetic Resonance Imaging Device (H2-MRI©), which would remove the need to administer a sedative to newborns in addition to providing a more accurate image.

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