Editorial

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Chest Percussion in Pediatrics: Is It Really A Dying Art?

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Abstract

Percussion of chest in children is often avoided by busy pediatric respiratory practioners and resident doctors. May be it doesnt yield more diagnostic information than auscultation. Pleural effusion, pneumonias, pneumothorax and pericardial effusion are few of the serious issues that can be easily suspected and differentiated only by percussion; while auscultation interpretes all these four as reduced air entry without foreign sounds. Authors are concerned; if physicians and medical students tend to overlook these diagnoses and insist for a radiogram that not only takes time and delays diagnsis or therapy ; but also is relatively expensive and exposes the child to radiations.

Keywords: Percussion; Clinical Skill; Pneumothorax; Clincial Diagnosis.

How does one conjure an image of a doctor?; a man clad in a white apron with a stethoscope hanging around his neck. But little does anyone know about the skilful art of percussion, maybe because doctors and medical students are hardly seen it practising these days. Be it respiratory or cardiac percussion, it does involve good cooperation from the child; a sound proof environment; a stripped child in sitting posture and discriminatory hearing skills of the physician or resident doctor. Does this make the test a cumbersome or difficult to practice? Amongst the four cardinal parts of examination, along with inspection, palpation and auscultation, percussion forms a vital aspect of examination of respiratory system; are we about to give up performing this test in children like JVP examination which is barely standing the test of the times.

One of the favourite habits of Laennec, the pioneer of the stethoscope, was to percuss every part of the chest of a patient admitted due to chest disorders. Although relying wholly on auscultation isn't completely incorrect, but it must be accepted that percussion can provide a rapid indication of intrathoracic problems in a patient who cannot take deep breaths owing to pain, weakness or altered mental status [1]. The test involves hearing the sound generated by percussing across the pleximeter finger placed tangential between the rib spaces and the plexor finger percusses over the middle phalanx. The density of structures and pathology underneath; produces specific sounds like resonant, hyperresonant, dull, stony dull!

There is a Feeling that; the Skill is not Plexed Enough!!

Probable reasons for the loss of interest in this art is likely to be the lack of practice/belief/need/ expertise in this aspect. Are high tech diagnostic tools down regulating our senses of touch and hearing? Obviously, having a look at the X ray would be a quite safer and reliable option; but percussing before referring to the radiologist would help us in two ways; provide a quick idea of any underlying process before the report arrives and also would not cause 'disuse atrophy' of our percussion skills.

Thoracocentesis is a common procedure in medical

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practice, which needs the aid of chest percussion as it allows for the identification of the pleural fluid meniscus, and therefore, the procedure site [2]. Improper tapping can increase the risk of pneumothorax. Although ultrasonography is an alternative aid for this procedure, the timeand money expense incurred by the patient; and the exposure to radiation is a noteworthy side effect. An approach towards this procedure is the method of clavicle tapping with posterior chest auscultation for the housestaff who have poor percussion skills.

A case study describes a new clinical sign in a case series of pneumthoraces. Two patients had inconclusive x rays before insertion of chest drains and the third had a pneumothorax diagnosed on clinical findings alone. Pneumothorax was diagnosed by the anesthetist purely based on sternal percussion and simultaneous auscultation [3]. Computed tomography may be the best investigation in this case, but it is not possible in all settings. A simple and rapid solution to this is chest percussion with simultaneous auscultation.

There is no substitute for the beginner; the skill needs to be learnt in small groups practsing on colleagues; doing it himself under the close criticism of his peers and instructor [4]. Procrastinating it by consoling ourselves that we would compensate later in our practice is the misleading notion that has led to this problem in the first place. Technique is similar in adults and children but a pediatrician does need to build up a skill for percussing children.

If doctors are not confident in carrying out procedures like chest percussion, they tend to advise radiological procedures to their patients. Almost 35 percent of imaging tests were ordered mainly as a defense against lawsuits, when really not required; according to a study presented at the 2011 meeting of the US Orthopaedic Surgeons [5]. This shows the massive wastage of funds and additional health hazards to the patients due to the degradation of simple clinical skills like chest percussion.

In this era of rapid technological advancement, it is difficult to find a doctor who can adjust to low resource clinical setup, maybe portraying the slow degeneration of academic skills in clinical medicine. Mastering percussion is a matter of sheer practice, which is not only helpful in such settings but also in modernised hospitals due to their high patient load. Are we educating our current doctors in such a way which might make them functionally handicapped without assistive technologies? Lets not let the tool die in course of time.

It is time to reunderstand the worth of this clinical tool and keep practising the skill to differentially diagnose lower respiratory patholgies in pediatric respiratory practice; saving time and resources; without any hesitations.

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