

## **FETAL ASCENT**

**If the palate pressure is some form of “pain”, the question arises as to the involvement of the cerebral somatic and association cortices, since the feeling and location of painful sensations can be interpreted in a rudimentary way by the phylogenetically older thalamus. The phylogenetically newer cerebral hemispheres and the cerebellum await sensory and motor activation involving that wonder, the cerebellum. However, the toddler learns to walk and balance largely through the red nucleus within the brainstem proper, not the cerebellum that is celebrated for motor function in the older individual (Diamond et al, 1985; Barlow, 2002). From an evolutionary perspective the newborn has the more ancient phylogenic and fully functional brainstem to deal with visceral functions, pain, sleeping, waking up, crying, etc. Thus, the older path carrying “affective” pain (hurt) through two paired nuclei within the rostral medulla i.e., the gigantocellularis (GC) and the lateral reticular nucleus, (LRN), shown in Figures 5 and 6 are assumed to be sufficiently mature in the fetus. Similarly, impulses relayed by the LRN go directly to the ventral posterior medial nucleus of the thalamus that relays these impulses directly to the SII cortical area and the cingulate gyrus that manage this kind of pain. While It takes time for the infant to use cortical functions for integrating and associating the new flood of outside perceptions interactively, thalamic to cortical communication occurs by another ancient phylogenetic path to the somatic area of the cerebral cortex from one of the medial nuclei of the thalamus, called the paleospinothalamic tract (Nolte, 2002; Diamond et al, 1985). This path would be functional in the infant and is assumed to be the same path in the adult. The path of discriminative pain going from the lateral medial posterior nucleus of the thalamus (Fig. 6) to the SI cortex is much younger on the the evolutionary scale and might be a questionable route in the fetus. However, M’s skull pressure sensations were located precisely.**