Peripheral Mediators of Visceral Pain

Nathalie Vergnolle

Inserm IRSD, UMR 1220, France

Visceral pain is a chronic condition often associated with intestinal disorders. Treatment options are limited as many pain killers have intestinal side effects. There is therefore a large unmet clinical need for novel visceros-specific analgesics. Recent breakthroughs have used tissues from patients, and in particular from Irritable Bowel Syndrome patients, a common pain condition affecting up to 15% of the population, in order to identify peripheral mediators involved in peripheral sensitization and pain. These studies have participated to the re-definition of the mechanisms involved in IBS, and by in large in visceral pain. Molecular profiling have identified a number of mediators including proteases, lipids, neuropeptides that are involved in peripheral tissues, in pain signal generation and processing. All these peripheral mediators and mechanisms will be reviewed in the context of human pathologies. The use of peripheral markers of visceral pain mechanisms and potential stratification of patients will be discussed.