Bilateral destructions of a well localised area in lateral hypothalamus led to complete cessation of eating, while lesions involving ventromedial nuclei or the region between these and lateral area produced hyperphagia and obesity. The lateral region (hunger mechanism) was designated 'feeding center' and the medial (inhibitory control) 'satiety center.' [The SCI indicates that this paper has been cited over 400 times since 1961.]

Bilateral lesions involving ventromedial nuclei produced hyperphagia and obesity. When the lesion involved the region between these nuclei and the lateral area, it resulted in overeating, thus demonstrating laterally projecting inhibitory effects of the medial hypothalamic mechanism over the lateral area. As the hyperphagia resulting from medial lesions was converted into aphagia by subsequent lateral lesions, it was considered that the lateral area is the primary mechanism for hunger resulting in the urge to eat and hence constitutes the 'feeding center.' As the medial area provides an inhibitor mechanism for the lateral, this constitutes the 'satiety center.'

Further studies carried out after my return to New Delhi not only confirmed the presence of these 'centers' in other animals; these also elucidated the nervous mechanisms for controlling and regulating our entire feeding behaviour which regulates the body's energy balance. They also established that the hypothalamic centers provide the basic urge of hunger and satiation, operating through the level of utilisation of glucose within the nerve cells of these regions. Sensory afferents from the stomach and other intestinal regions also activate the satiety center.

The publication of this paper in 1951 resulted in the initiation of many similar experimental studies almost all over the world. The interest generated by such studies has also resulted in a number of special international symposia and seminars, etc., and the establishment of an international society for the study of feeding and drinking mechanisms.

As the paper cited above was the first one to describe the presence of the hypothalamic control mechanisms for the feeding behaviour, it explains its high citation frequency.