ABSTRACT OF THE DISCLOSURE

In a needle electrode device with a temperature sensor, having a hollow outer needle (1), which can be pierced into an affected area and is coated with an insulating layer (11) on an outer peripheral surface except at its distal end, and an inner needle (2), which is passed through the outer needle and has the temperature sensor (21) at its distal end, so that a high frequency current is supplied to the outer needle through the inner needle, and having a coupled tube (3) coupled to the rear end of the outer needle, so that the rear end (22) of the inner needle is inserted into the coupled tube in such a way as to be freely adjustable in its position in an axial direction, the position adjustment of the inner needle is provided with a simple operation. The coupled tube (3) is provided inside with a spring member (32) including a winding portion (32a) around the outer circumference of the rear end (22) of the inner needle (2) and a fixed portion (32b) fixed to the coupled tube (3). Moreover, the rear end (22) of the inner needle (2) can be moved in the axial direction by rotating the rear end (22) of the inner needle (2) in the opposite direction to a winding direction of the winding portion (32a).