m-RNA expression of TNF-a levels in Type 2 diabetic and non-diabetic individuals with apical periodontitis

Aim: To compare the gene expression levels of tumour necrosis factor-alpha (TNF-a) in teeth with apical periodontitis of diabetic and non-diabetic individuals.

Methodology:
The study was performed after taking ethical approval and a consent form from the patients. Fifteen type 2 diabetic patients with HgA1c level between 6 and 7, having chronic apical periodontitis were selected for the test group. Fifteen nondiabetic and systemically healthy patients were selected as the control group. Clinical samples were taken from teeth with periapical lesions with a radiographic diameter greater than 2 mm. After chemo-mechanical preparation and drying of canals, three paper points were introduced into the root canal, passing passively through the root apex 2 mm into the periapical tissues for 1 min and collected in TRIzol reagent. The mRNA expression levels of TNF-a were determined by Real-Time PCR. Following the isolation of total RNA from each sample, cDNA was synthesized, and PCR reaction was performed. GAPDH was used as an