



# TRANSSPHEROIDAL SURGERY, GAMMA-KNIFE SURGERY AND DIABETES ARE THE FACTORS AFFECTING THE QUALITY OF LIFE IN ACROMEGALIC PATIENTS

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**AIM:** Acromegaly is a chronic disease with an important impact on patients, Health Related Quality of Life (HRQoL). Acromegaly Quality of Life Questionnaire (AcroQoL) is a disease-generated QoL questionnaire comprising 22 questions each having five possible responses scored 1–5, the maximum score of 110 reflecting best possible QoL, and quoted as a percentage. The 22 items break down into two categories, physical and psychological function, the latter being subdivided into appearance and personal relationships. We aimed to investigate the factors affecting the QoL in acromegalic patients by using AcroQoL.

**MATERIAL-METHODS:** Sixty-five acromegalic patients (37 male, 28 female) were enrolled in this cross-sectional study. Patients completed AcroQoL. Patients medical history and laboratory findings were available from patients past medical records.

**RESULTS:** Age (mean±SD: 44.75 ±10.81 year), body mass index (mean±SD: 29.77±4.20 kg/m<sup>2</sup>), disease duration (median [IQR]: 48 [12-103] months), basal growth hormone (GH) (median [IQR]: 1,66 [0.69-6.05] ng/dL), nadir GH (median [IQR]: 1,13 [0.47-4.80] ng/dL) and insulin like growth factor (IGF-1) (median [IQR]: 311 [199-504.5] ng/dL) were evaluated. Characteristics of acromegalic patients were summarized in Table-1. Disease control was evaluated by IGF-1 (reference values per age) and GH levels (random GH<1 ng/dL in patients on somatostatin analog [SA] and nadir GH<0.4 ng/dL in patients not on SA). Twenty-four (36.9%) patients were under control according to IGF-1 criteria, while 20 (%30.8) patients were under control according to GH criteria. No correlation was found between AcroQoL scores and any of the parameters. AcroQoL scores were lower in patients with diabetes (52 vs 67, p<0.05) and who had radiotherapy ( 59 vs 75, p<0.05). However, patients who underwent transsphenoidal surgery (TSS) had higher scores ( 66 vs 39, p<0.05).

**Table-1: Characteristics of acromegalic patients**

	Acromegalic patients (n=65)
Diabetes Mellitus (%)	18 (27.7)
Hypertension (%)	28 (43.1)
Hyperlipidemia (%)	20 (32.3)
Hypopituitarism (%)	19 (29.2)
Transsphenoidal surgery (TSS) (%)	55 (84.6)
Gammaknife radiosurgery (GKS) (%)	39 (60)
Somatostatin analog (SA) (%)	41 (63.1)
Patients with normal IGF-1 (uncontrolled) (%)	24(36.9)
Patients with suppressed GH (%)	20 (30.8)

**Table-2: Factors affecting AcroQoL scores**

	AcroQoL Scores of patients with	AcroQoL Scores of patients without	p value
Diabetes Mellitus	52	67	<0.05
Transsphenoidal surgery (TSS)	66	39	<0.05
Gammaknife radiosurgery (GKS)	59	75	<0.05

**CONCLUSIONS:** Our results demonstrated that TSS, GKS and co-existing diabetes were the only factors affecting acromegaly related QoL.