

RELATIONSHIP BETWEEN SERUM VEDOLIZUMAB CONCENTRATIONS IN INDUCTION PHASE AND EARLY AND SUSTAINED RESPONSE IN PATIENTS WITH ULCERATIVE COLITIS

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BACKGROUND AND IMPORTANCE

Evidence regarding the usefulness of proactive monitoring of serum vedolizumab concentrations (SVC) during the induction phase of treatment is limited.

OBJECTIVE

To evaluate the effectiveness of measuring SVC during the induction phase in predicting response to treatment in patients with ulcerative colitis, in order to determine whether patients would benefit clinically from early SVC monitoring.

MATERIALS AND METHODS

Prospective, descriptive study carried out at three public general hospitals.

Patients: Adults with ulcerative colitis who initiated treatment with vedolizumab at the participating hospitals from June/2019 to June/2020.

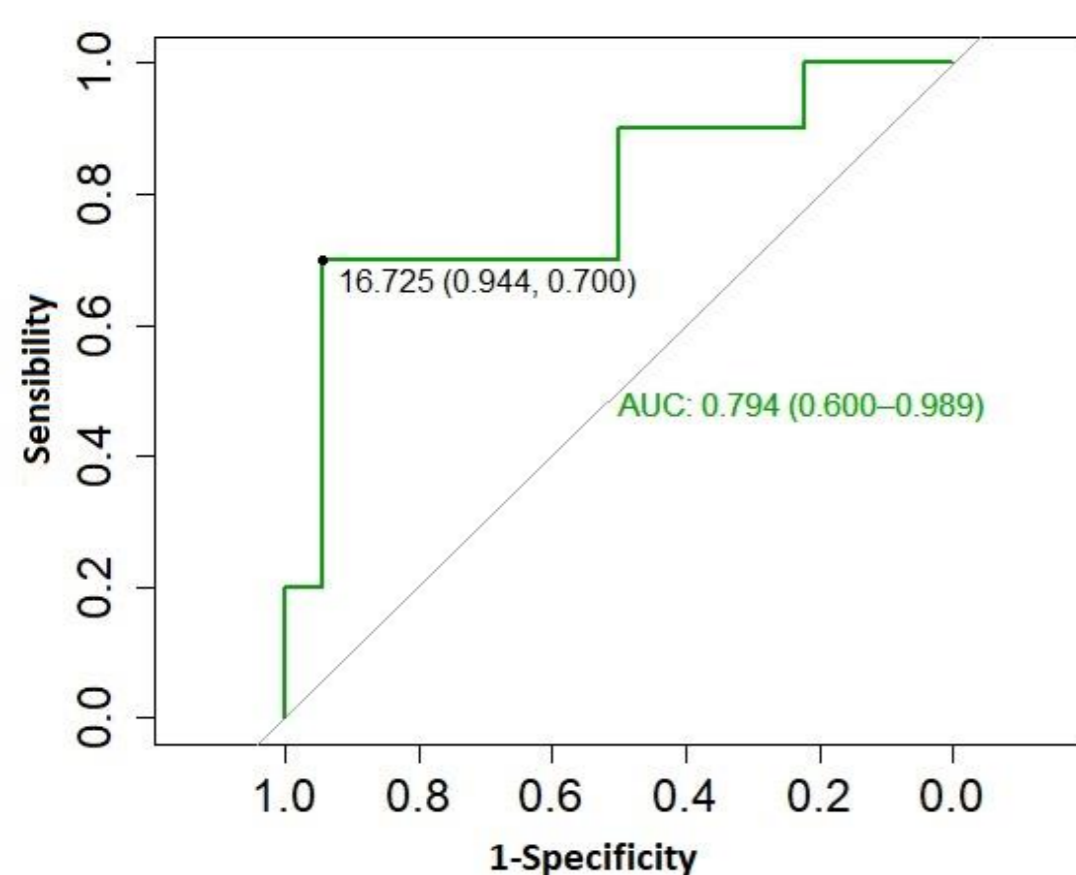
- **Serum vedolizumab concentration** were determined at 6 week of treatment using the enzyme-linked immunosorbent assay (ELISA).
- **Response criteria:**
 - Early response: Biological, clinical, and endoscopic remission at week 14 without induction additional dose at week 10.
 - Sustained response: Sustained response during the first year of treatment without dose intensification due to loss of response.
- **SVC cut off point predicting therapeutic outcomes:** Receiver Operating Characteristic (ROC) curves.

RESULTS

- **30 patients:** 43% women
Age: 55 (18-85) years

- **Treatment with previous anti-TNF therapy:** 16 patients

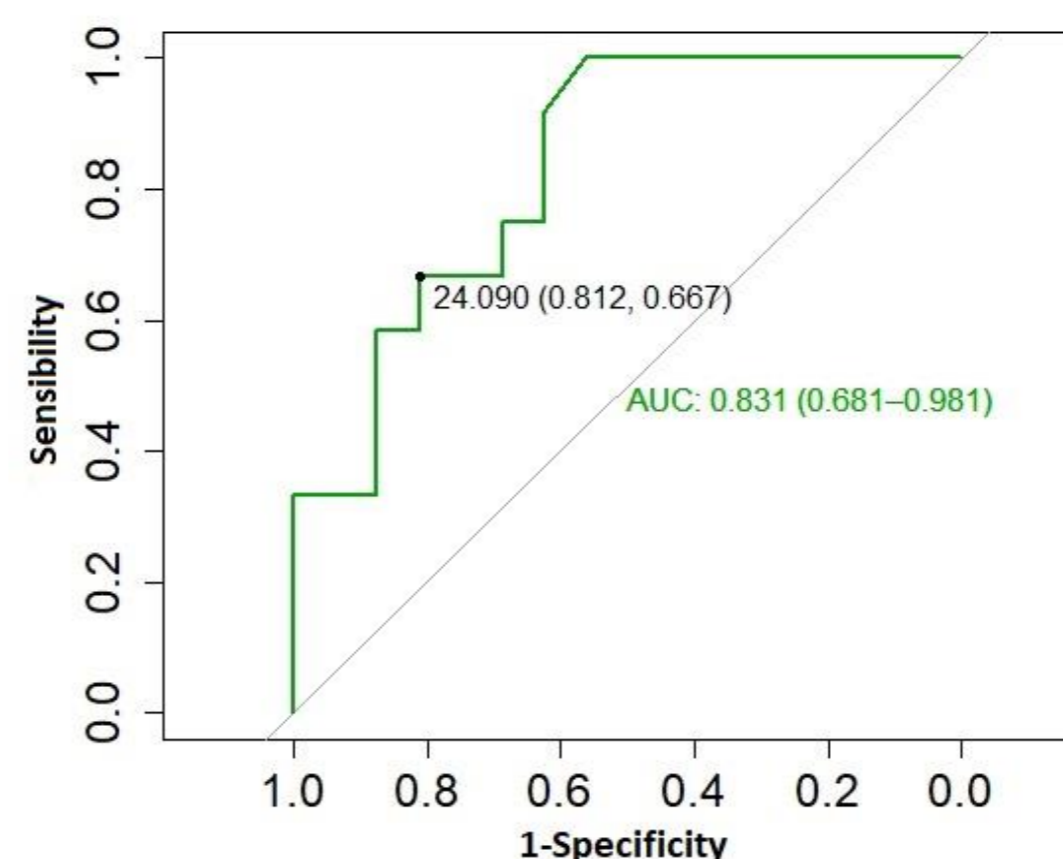
Relationship between SVC at week 6 and early response



Cut off point of SVC:
≥16.7 μg/mL

20 patients
achieved early response

Relationship between SVC at week 6 and maintained response



Cut off point of SVC:
≥24.1 μg/mL

14 patients
achieved maintained response

CONCLUSIONS

- We observed a relationship between SVC determined at week 6, and early and maintained response to vedolizumab therapy in patients with ulcerative colitis.
- This supports early drug monitoring during the induction phase to individualize treatment and increase effectiveness.