Evaluating the Impact of Neoadjuvant Chemotherapy and Surgery on Quality of Life (QL) in Patients with Early Stage NSCLC: A Prospective Analysis as part of the GINEST Project

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Summary

Background: The assessment of the impact of combined modality therapy (CMT) on Q of L has only recently been given clinical research attention. The reasons for this lack of significant research interest in both neoadjuvant and adjuvant approaches appears to be due to the absence of either integrated prospective multidimensional QL and QOL assessments or those using validated QL instruments, such as the LCSS (Lung Cancer Symptom Scale). This study was designed to bridge this gap.

Methods: The objective was to compare patient determined quality of life (QOL) in neoadjuvant chemotherapy with those in early stage NSCLC (Stage I and II) receiving surgery alone. LCSS form was utilized to assess, prospectively, three early (1 week) cycles of neoadjuvant chemotherapy prior to surgery. It captures the patient's perceptions of changes in QOL at baseline, preand post-treatment for the disease, and its impact on their physical and social functioning.

Results: Full QL data over the 6-month evaluation period were available in the study population (N = 106; 52% women, median age 67 yrs, 96% had complete resections, 93% had pathological stage I or II disease). Using the LCSS form, all patients showed a significant improvement in QL post-treatment; however, no gender differences were noted. Patients in the neoadjuvant group showed a more balanced improvement in most domains, with a larger increase noted in the physical function domain. Overall, these data suggest that among patients undergoing surgical treatment, those receiving neoadjuvant chemotherapy experience an improved QOL compared to those undergoing surgery alone.

Conclusions: These findings may have implications for the future treatment of early stage NSCLC. Further research is needed to confirm these findings and to better understand the impact of neoadjuvant chemotherapy on QOL in this patient population.

Quality of Life Assessment Form

- Global QOL Score: 0-100
- Symptom Severity: 0-10
- Symptom Frequency: 0-10
- Symptom Impact: 0-10
- Life Satisfaction: 0-10
- Physical Function: 0-10
- Social Function: 0-10
- Emotional Function: 0-10
- Cognitive Function: 0-10
- Pain: 0-10

Quality of Life Outcomes

- Global QOL Score: Improvement at 6 months post-treatment (N=42) vs baseline (N=40)
- Symptom Severity: Improvement at 6 months post-treatment (N=42) vs baseline (N=40)
- Symptom Frequency: Improvement at 6 months post-treatment (N=42) vs baseline (N=40)
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