Neoadjuvant Therapy

Neoadjuvant therapy refers to both chemotherapeutic agents as well as endocrine therapy. The amount of time treating patients with neoadjuvant therapy is variable. For chemotherapeutic agents, some patients reach maximal tumor reduction following 2 cycles while others require many months of treatment; similarly, studies have shown that at least 4 months of endocrine therapy should be administered however, longer treatment (6-12 months) may be warranted if there is continued tumor response.

An optimal chemotherapy regimen has not been well described although most recommend an anthracycline containing combination (e.g. 5-FU) or a taxane. Endocrine therapy as neoadjuvant therapy has proven to be effective and is much better tolerated than chemotherapy particularly in elderly patients. Studies have shown that third generation aromatase inhibitors are superior to tamoxifen in treating post-menopausal women with breast cancer.

The use of neoadjuvant therapy in the treatment of breast cancer has increased in an effort to decrease tumor size to provide breast-conserving surgery to more patients and avoid the need of mastectomy and to operate on tumors that may have previously been inoperable. Furthermore, neoadjuvant therapy particularly endocrine therapy has become the standard of care in treating patients who have hormone sensitive cancer and who are unable to withstand surgery and/or chemotherapy. An additional benefit to neoadjuvant therapy is that it demonstrates tumor response to a particular therapy which can be used to predict future sensitivity if used in the adjuvant setting allowing for an early change of therapy if there is a poor response.

Neoadjuvant therapy is an important tool in the treatment of breast cancer although many questions still remain. Ongoing studies are trying to compare the effect of neoadjuvant endocrine therapy verse neoadjuvant chemotherapy in hopes of establishing a standard of care to treat women more effectively with hormone sensitive tumors. Future goals also include not only determining the most optimal course of treatment but also optimal duration.

References: