

b. More accurate staging

An advantage of adjuvant staging is that it enables more accurate staging of tumors (47,48,49). The particular stage of a tumor is routinely assessed for cancer patients, and is used as part of the entry criteria in clinical trials, and may be correlated with specific courses of treatment. However, if patients had been treated with chemotherapy or radiation therapy before surgery, staging of the tumor will not likely be accurate.

c. Drugs that require chronic treatment, for example for 5 years

An advantage of adjuvant therapy over neoadjuvant therapy is where the drug requires chronic administration. In this situation, adjuvant therapy must be used. For example, surgery for breast cancer may be followed by 5 years of administering tamoxifen (50,51,52). In detail, extended adjuvant endocrine therapy (tamoxifen) is recommended for postmenopausal women with endocrine responsive breast cancers. The reverse type of study design, that is, neoadjuvant therapy for 5 years, followed by surgery, would not make any sense.

IV. TWO MEANINGS OF THE TERM ADJUVANT

The term *adjuvant* has two different meanings. One of the meanings, which is the subject of this chapter, means therapy, such as chemotherapy or radiotherapy, that is given after surgery. The second meaning relates to vaccines. In the context of vaccines, adjuvant refers to a drug that provokes a non-specific increase in immune response, that is, a specific drug that provokes an increase in immune response against a wide variety of specific antigens. Immune adjuvants include cytokines, CpG oligonucleotides (53)

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