against a wide variety of specific antigens. Immune adjuvants include cytokines, CpG oligonucleotides (62), poly(I:C) (63), imiquimod (64), and Freund's incomplete adjuvant (65). Immune adjuvants can increase the immunostimulatory effect of the vaccine (66,67,68).

IV. SUMMARY OF NEOADJUVANT VERSUS ADJUVANT THERAPY IN CANCER

Oncology clinical trial design includes the options of using surgery only, chemotherapy only, the combination of chemotherapy and surgery, and the option of radiation. These choices further compel the need for deciding the ordering of treatments, for example, using neoadjuvant therapy versus adjuvant therapy. It is interesting to note that, when a promising new drug becomes available, such as imatinib, the medical community responds by testing its efficacy in clinical trials that use neoadjuvant design and adjuvant design (69,70).

V. INDUCTION THERAPY VERSUS MAINTENANCE THERAPY IN AUTOIMMUNE DISEASES

a. Introduction to Induction Therapy and Maintenance Therapy

The concepts of sequential pairing of chemotherapy followed by surgery (or surgery followed by chemotherapy) in cancer have a counterpart in treatments for autoimmune diseases. Autoimmune disease treatment may involve induction therapy followed by maintenance therapy. As is the case with chemotherapy followed by surgery (or vice versa), it is the case that induction therapy may be followed by an assessment of response, with a defined interval of time required before initiation of maintenance therapy. The following reveals that induction phases and maintenance phases are used in the treatment of the autoimmune diseases, systemic lupus erythematosus (SLE), rheumatoid arthritis (RA), and psoriasis.

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