

Reprinted from
Methods of Information in Medicine - Methodik der Information in der Medizin

Vol. 1, No. 3, July 1962, pp. 79-82

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DK 615-036 : 31

Controlled Trials: Nuisance or Necessity?

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(Received July 19, 1961)

Placebos can mimic in many ways the characteristics of active drugs. The importance of placebo controls in clinical trials in the evaluation of therapeutic efficacy and side action liability of drugs is exemplified by specific examples from human experimentation. It is concluded that controlled trials will prevent many of the errors inherent in uncontrolled therapeutic observations.

VERSUCHSPLANUNG: UNFUG ODER NOTWENDIGKEIT?

Placebos können auf mancherlei Art die charakteristischen Eigenschaften wirksamer Arzneimittel vortäuschen. Die Bedeutung von Blindversuchen bei klinischen Prüfungen für die Ermittlung der therapeutischen Wirksamkeit und der Nebenwirkungen von Arzneimitteln wird an typischen Beispielen der Prüfung beim Menschen erläutert. Daraus wird der Schluß gezogen, daß durch geeignete Versuchsplanung viele Irrtümer vermieden werden können, die aus ungenügend nachgeprüften therapeutischen Beobachtungen entstehen.

The last decade has witnessed an explosive increase in the number of drugs available for the treatment of disease. It is my plan to discuss certain data obtained in recent years which I believe constitute a strong argument for the properly performed therapeutic experiment, or clinical trial. I shall proceed from specific examples to a more general, but brief, discussion of the principles of such trials.

Some figures will illustrate what I like to call "the pharmacology of the placebo." Figure 1 is a graph of the percentage of patients with postpartum pain reporting complete relief at various times after medication. It is obvious that both aspirin and placebo show a time-effect relationship, i. e. the magnitude of analgesic effect "peaks" at approximately 2 hours, with less effect apparent before and after this point.

A second basic characteristic of many active drugs is their ability to show a cumulative effect when repeated doses are given. Figure 2 indicates that placebos can also show this characteristic. In the experiment which is summarized here, 34 tubercular patients were asked to fill out daily forms for 9 days, describing their level of appetite. As figure 2 shows, this level remained reasonably static. Then every day for a week, each patient received a small yellow inert tablet, which was described to

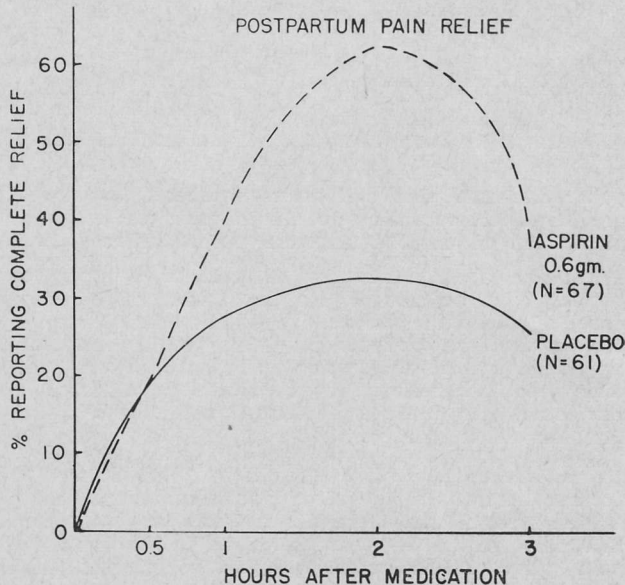


Figure 1