

# Placebo effect in clinical practice

Radwan Banimustafa MD



# Definitions

- ◉ Latin for I shall please .
- ◉ An inactive substance /preparation given to satisfy the pt's symbolic need for drug therapy and used in controlled studies to determine the efficacy of a medicine , also a procedure with no intrinsic therapeutic value .



# Definitions continue...

- A placebo is any therapeutic procedure which given deliberately to have an effect on a pt's symptoms, but objectively without specific activity for the condition it is given for
- The placebo must be differentiated from the placebo effect , which may or may not occur and which may be favorable or unfavorable .
- The placebo effect is defined as the changes produced by placebos .



# Definitions continued...

- The placebo is also used to describe an adequate control in research .
- A placebo is some thing , which is intended to act through psychological mechanism , it is an aid to therapeutic suggestions, but the effect which it produces , may be either psychological or physical .



# Definition continue...

- Observer – oriented definitions , on the other hand , tend to be broader : “placebo” refers to that aspect of any treatment which is effective through symbolic rather than instrumental means . In this view , the placebo is “an active ingredient in practically every prescription” indeed, any thing offered with therapeutic intent may be a placebo .



# Definition continue ....

- Placebo effect may also be viewed as a subset of a larger group of mind-brain-body effects such as the psycho-immunological effects of religious beliefs, cultural and social systems



# The negative connotations of placebo

- The placebo effect is a neglected and berated asset of patient care .
- The more the doctor viewed medical practice as a scientific exercise , the more disparaging he was about placebo therapy .



# More negatives

- Doctors definition tend to suggest that the placebo is an inert preparation ,or form of therapy , which has little or no specific medical effect , but is given “to humor rather than cure . “ Definition of this type always imply that the practitioner knowingly exploits such technique to gratify the patient .





# However .....

- Even though on an official basis , the medical community disdains the use of placebo and is trying to get it out of the way so they can prove the efficacy of the therapeutic agents they use , placebos are there front and center ....



# Doctors attitude toward placebo (Jean Comaroff)

- Dr A “ I would say that I prescribe it in 95% of my consultations .That sound high , it is high, not all these of the prescriptions are warranted in medical terms . When people go to doctors they expect a prescription , even if given Aspirin it would have therapeutic value .You can't always call this placebo, I would say the placebo effect was 50% , it is very important that every body get a prescription , most of the thing I give have therapeutic effect of some kind .But for some of them it's the placebo effect rather than the therapeutic effect that is more important .



# Others are beginning to recognize that there is something to it

- Too many studies have found objective health improvements from placebo to support the notion that the placebo effect is not entirely psychological .



# How big is placebo effect

- In 15 studies involving 1082 pts , placebos were found to have an average significant effectiveness of about 35%, a degree not widely recognized .
- About 75% of the apparent efficacy of antidepressants may be attributable to placebo effect .
- Wolf and Pinsky (1954) found that 30% of 31 anxiety patients improved on placebo(lactose) .



# How big is the placebo effect...

- In 1946 DuBois stated “ although scarcely mentioned in the medical literature, placebo is more used than any other class of drugs .
- Many effective drugs have power only a little greater than that of placebo .
- Many of the drugs have been extolled on the basis of clinical impression when the only power they have is the placebo effect .
- In recent years in a lot of studies done by drug companies ,sugar pills have done as well as or better than antidepressants .



# How big placebo effect ....

- A study of 500 patients undergoing dental procedures , those who were given placebo injection and reassured that it would relieve their pain had the least discomfort – not only less than the patients who got placebo and were told nothing but also less than the patients who got a real anesthetic without any reassuring comment that it would work .



# How big is the placebo effect ...

- The world average of for placebo effect in peptic ulcer studies is about 36%, results in USA is close to this , in Germany about 59% but 22% in Denmark and the Netherlands , and in Brazil only 7% .



# What part of an active drug effect is real

- The placebo effect of active drug is masked by their active effects . The power attributed to Morphine is then presumably a placebo effect plus its drug effect .The total drug effect is equal to its active effect plus its placebo effect
- Of a group of severe postoperative pain 75% are satisfactorily relieved by large doses of Morphine , But 35% are relieved by placebo .
- What counts more in reality Is what is going in the brain/mind not the





# It may be hard to tell how much of the effect is “real”

- In their studies in the university of British Colombia ,researchers found that comparable levels of Dopamine are released in the brain after an injection of either a drug or a placebo IF the patient expect to get the drug .
- In one blind study, researchers found that patients with Parkinson's disease who were given placebo released Dopamine in their brain , just like those who were give active drug .



# Patterns of discovery

- Three phases :

- 1 – It's new. It'll cure every thing . And of course there are no side effects .
- 2 – Oooops! Maybe we were wrong. The honeymoon is over .
- 3 – Is it actually better than any thing we have ? Is it actually better than placebo .



# Patterns of discovery.....

- Honigfeld show that drs communicate a subtle enthusiasm to pts in clinical trials and clinical situation .
- Many temporarily successful new surgical procedures owe their success to placebo effect alone .
- In a recent study in arthroscopic knee surgery, matched against sham surgery, 2 yrs later 35% of pts said they felt less pain ,were better able to get around , whether they were operated upon or not .



# Changes in Medicine

- Medical science has improved so much and so fast in the last 40 yrs that it is easy , perhaps, for drs to neglect the part of medicine that is not a science at all .
- The ready and lavish display of sympathy , the laying on of hands, the projection of a slightly mystical authority, are now more often the province of alternative medical practitioners .



## Important factors in placebo effect

- The placebo effect seems to be derived from a combination of factors involving the pt. the Dr and the relationship between the two . A meaningful Dr-Pt interaction is extremely important , allowing the transfer of the pt's concerns to an acknowledged scientist and healer, the physician .
- The physician's beliefs in the intrinsic worth of his medicine has always rivaled that of the patient .
- The psychological state of the pt. , pt's expectation and conviction all affect his response to treatment wither active or placebo .



# Factors continue...

- Physicians who have faith in the efficacy of their treatments allow that enthusiasm to be communicated, have strong expectations, and are self-confident and attentive are the most successful in producing positive placebo effect.
- The length of time spent with the patient and the demeanor of the physician are pertinent factors.



Thank you

