Ménière’s Disease (MD) is a condition characterized by physical manifestations relating to spontaneous abnormal functioning of the inner ear – vertigo, tinnitus, hearing loss and a feeling of aural fullness. However, in this paper I would like to refer mostly, not to the effects of the debilitating episodes themselves, but rather to the psychological effects caused during the time between the attacks. I would like to connect several traits of these attacks to psychological research from different subfields, and suggest that the main debilitation caused by MD isn’t from the attacks themselves but rather their unpredictable nature.

First, a few words about the condition. MD is expressed by recurring spontaneous feelings of spinning (sometimes severe enough to cause "drop attacks"), ringing in the ear, a feeling of fullness in the ear, hearing impairment and sometimes also headaches. Sometimes, these are accompanied by side-effects of vertigo - such as nausea and vomiting. These attacks can last anywhere from 20 minutes to 12 hours, with the time between varying – from several episodes in a few days to months and years between attacks. The cause of the disease is not clear as of now and it is yet incurable.

The relationship between the disease and the psychological state of the patients has been widely studied, with both directions examined – both psychological effects caused by having the disease and theories of psychosomatic causes of it (as well as their combinations causing a "vicious cycle"). The focus of this paper is the former, with an attempt to explain these effects by general psychological research. Studies have shown that the self-assessed quality of life of MD patients is significantly lower than that of the general population [1, 2]. Vertigo is considered the most critical factor to this according to some studies [2, 3] and tinnitus in others [4].

Attacks tend not to be very frequent, with one study [4] reporting roughly 60% of patients surveyed had no attacks in the preceding 4 weeks, and about 30% didn’t have any attack in the prior year. However, in the same study, a vast majority – 74% – of the queried patients noted that there were activities and situations they avoided because of their condition, and a similar percent (74%) stated they “never felt free of discomfort” from the symptoms of the disease. The concurrence of these facts, may suggest that the main detrimental effect of MD is caused by constant fear of experiencing an attack. After all, the vast majority of the time the patients aren’t experiencing an attack, but they do feel some sort of anxiety. The fear of an unexpected episode of MD affects their behavior and lifestyle. This type of anxiety has been exhibited, for example, in the case of back pain disability – where self-reported disability and behavioral performance was significantly more correlated with fear of pain, rather than the intensity of the pain itself [5].

As mentioned above, a key characteristic of MD is the unpredictability of the attacks which comes into play because of the variable time that passes between them – months or even years. Different studies have shown that the unpredictability of unpleasant stimuli increases the avoidance the subjects exhibit subsequently [6], as well as the fear invoked and the pain reported itself [7]. This suggests that the irregular nature of MD episodes significantly increases the emotional and behavioral toll they take on patients. It is worth noting that most of these
studies were done on short periods of time, and yet seem to be extendable to larger stretches (as in this case). Understandably, if the attacks were precisely and consistently timed, patients would be able to plan accordingly and could keep a close-to normal lifestyle. Yet, the episodes are largely unpredictable and as such cause significant distress. As evidenced in a previously mentioned study [4], even though the attacks are often months apart, they have a significant impact on the day-to-day life of patients, because of their unpredictability.

Another factor that is likely to add to the anxiety caused by MD is the variability and uncontrollability of the attacks themselves – both in duration and in severity – and the fact that each attack can contribute unforeseeably to irreversible damage. In the study referenced above [6], unpredictable intensity of an aversive stimulus also increased its aversiveness. Similarly, it can be anticipated that the inconsistency in the features of each attack adds to the anxiety patients experience.

This short analysis of the characteristics of MD, suggesting that the uncertain nature of the episodes may significantly increase the burden it causes for people suffering from it, leads to the question whether this increase may be reduced. I would like to use these conclusions to suggest a small course of action that may ease it slightly. I believe that a rational decision by patients suffering from MD to keep a lifestyle that – as much as possible – disregards the risk of an attack, would allow lowering the toll the disease has on them. As mentioned earlier, attacks tend to be infrequent and short, and it seems that the main burden is caused by constant preparedness for such an episode. Thus, even if this might make the effect of the attacks a little harsher, the vast majority of the patients’ time may be less burdened. Furthermore, it may be wise to dedicate some of the research on MD to developing methods to predict attacks (even if not managing to prevent them), so as to reduce the unpredictability factor.

In addition, as the lack of control is a significant factor in the distress caused by attacks, coupling a controlled – and positive – factor to them, even artificially, may have a helpful effect. Prof. Dan Ariely tells in his book [8] and TEDxDuke talk [9] about his method for correlating negative events he had go through with positive scenarios. He used this method "forcing" himself to take required medical injections with severe side effects three times a week over a period of a year and a half, using a technique he calls "reward substitution". He would couple the painful injection with a movie he would look forward to, thus changing the short term balance that was totally against the injection. Similarly, a patient's decision to couple unexpected MD attacks with a more favorable outcome, e.g., promising himself a significant treat he would not normally indulge in, could lessen the dread connected with these attacks just a little.

To conclude, I have tried in this paper to touch upon the subject of the psychological toll MD causes focusing on the part unpredictability has in it and demonstrating how this is related to previous results from various psychological studies. Additionally, I have suggested small measures that may allow the use of this understanding to help MD patients. And as a final note, I hope that in the coming year's research into MD will allow the improvement of patients' lives, and maybe even bring an end to this condition.

Unpredictability as a major factor in Meniere's Disease by Or Sagy
Runner Up - Ménière's Society (RCN 267246) Marie and Gordon Nobbs Award 2016
http://www.menieres.org.uk/news/entry/144/scientific-essay-winners
References


