**EFFECT OF QUR’ANIC RECEPTION ON CHONDROCYTES GROWTH USING SCRATCH WOUND ASSAY: WORK IN PROGRESS**

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**Introduction:** The recitation of the Holy Qur’an is a special practice that is valued by Muslim communities across the world. In the Islamic tradition, the use of Qur’anic verses for therapeutic purposes can be traced back to the times of Prophet Muhammad (ﷺ). Cartilage has limited capacity for self-repair due to its avascular nature. The limited capacity to self repair could raise complications in future. Hence, efforts must be intensified to find the appropriate treatment that require a non-invasive technique such as healing with Qur’anic recitation.

**Objective:** This study aims to identify the potential effects of the Qur’anic recitation, particularly Surah Al-Fatihah on the wound healing activity of chondrocytes derived from rabbit articular cartilage.

**Methodology:** The study was approved by the IIUM Institutional Animal Care and Use Committee (IIUM/IACUC Approval/2015[5]222). A speaker, with recorded sounds, wrapped with plastic and treated with 70% ethanol in order to maintain the sterility was placed inside a thermal container. Four groups of cultured cells were then individually placed inside the container. Group 1 was exposed to Surah Al-Fatihah, Group 2 to Arabic poem, Group 3 to Western poem. Group 4 was exposed to Mute sound where the speaker was not activated. These four groups were returned to the incubator after the exposures. The fifth group acted as control in the incubator. The intensity levels of the different sounds used were kept within normal human conversation level (~60 dB SPL). A Sound Level Meter (SLM) was used to normalize these levels. The exposure durations within the container were about 14 minutes each cycle. The process was repeated with the cells at different passages (P0 – P3).

Rabbit articular cartilage tissue sample were obtained from commercially available source [n=6] Enzymatic digestion method was used to isolate “chondrocytes” from the cartilage tissue. The isolated chondrocytes were counted and prepared for expansion in monolayer culture. Culture wells were filled up with growth media and maintained in a CO₂ incubator.

**Results:** The findings indicate that the group exposed with the Qur’anic recitation shows the highest percentage of cell migration which is 40%. Meanwhile, the groups exposed to mute sound, Arabic poem, Western poem and control group show 28%, 25%, 24% and 17% in cell migration respectively. The results are summarized in Fig. 1-5.

**Discussion:** The wound healing assay is a standard in vitro technique for examining collective cell migration in two dimensions. It is suggestive that proliferation of chondrocytes exposed to Qur’anic recitation experienced an increase in cell proliferation and a reduction in healing time. It is postulated that the Qur’anic recitation can become one of the healing mediums as it provide a favourable effect in increasing the cells proliferation.

**Conclusion:** This study shows the potential of Qur’anic recitation, in particular Surah Al-Fatihah, on the wound healing activity of chondrocytes. Hence, the chondrocytes culture results optimized in this study could pave the way for possible applications in treating injuries to articular cartilage and also be a potential approach for cartilage regeneration in tissue engineering. Further study in a larger scale needs to be conducted to deliberate this aspect accordingly.

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