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Use of Painless Laser Acupuncture (PLA) for Low Back Pain

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Background & Hypothesis:

Laser emits the purest form of light energy known as photons. Photons, when applied to the acupoints, some of its light energy will be absorbed by the cells to have tissue healing effect. This paper presents some of the case studies showing the effect of painless laser acupuncture (PLA) on patients who suffered from low back pain (LBP).

Methods:

Space laser SpA (Model IR CEB/UP, 904 nm, 10 watts peak power, average energy delivered 0.3 J/cm² per minute) was used. Depth of penetration is about 40 mm. Thor Ltd (Model DD, 810 nm, 200 mW, CW with output energy at 12 J/cm² per minute) was used. Depth of penetration is about 30 mm.

Results:

A 36-year-old male, who had acute low back problem for over a week, was given 6 PLA treatment sessions over a period of 2 weeks at 3 sessions per week. Another 40-year-old female patient who had been diagnosed by a medical doctor with slipped disc was in pain despite 15 years of chiropractic treatment. She was given a course of 10 PLA treatments over a period of 4 weeks. A 38-year-old female, who suffered from chronic LBP for about 8 months, received a similar 6 PLA treatment sessions over 2 weeks. All patients were free of pain after the treatments.

Discussion & Conclusion:

Laser produces a magnetic (YIN) and an electric (YANG) component which is perpendicular to each other and the characteristics fulfilled the principle of the classical acupuncture without the use of the needle and the Moxa roll. The benefits of PLA will be delineated in this presentation.



7th Singapore Health & Biomedical Congress 2016

AH-40

Use of Low Level Laser Anaesthesia for Teeth Extraction

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Background & Hypothesis:

The use of laser in dentistry is not new, as it is already used for oral mucositis, gingiva and surgical wound. However, laser anaesthesia in teeth extraction is new and first of its kind. The author sets out to find the analgesic effect for molar and fractured premolar extraction.

Methods:

Probe "A"-638nm/150 mW delivered 135 Joules/cm² was directed at the molars for 15 minutes. Probe "B"- Superpulsed Cluster 5x904nm/30W delivered 37 Joules/cm² on the opposite cheek was applied for 25 minutes. Probe "C" Multi-cluster 810nm/6x500mW delivered 1,056 Joules/cm² was applied for 14 minutes prior extraction.

Results:

Extraction proceeded after the "sensitivity" test but sharp acute pain was experienced at the point of extraction. Immediately, Probe "A" was applied at the molar and Probe "B" on the opposite cheek for 5 minutes, and then the premolar was extracted without pain.

Discussion & Conclusion:

Due to drug allergies, laser anaesthesia is used for teeth extraction. There was no discomfort and bleeding after the gauze was removed at home. Except at the point of extraction, the procedure went smoothly. Without past references of laser dosage requirement, the estimated dosage is 25 minutes with a total 1228 Joules/cm² energy irradiation. This could be the reason for the pain experienced. If a longer time of laser irradiation could have been applied in preparation, one can have a pain-free experience. Laser anaesthesia has the potential to provide pain relief as results show that it is especially suitable for the elderly and those with allergies. Further studies are needed to validate its effects.