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| **Supplementary table: Interventions, outcomes, and results of the trials on patients with PD** | | | | | | | | | |
| **Author** | **Tx Time**  **Tx Session**  **Period of Tx** | **Tx Zone**  **(electrodes placement)** | **Treatment parameters** | | | |  | **Results** | **Follow-up** |
| **Intensity (**mA**)** | **Pulse duration** (μs) | **Fr** (Hz) | **Current**  **type** | **Clinical**  **outcomes** |
| Tugay  2007  [30] | -20 min at the time  of dysmenorrhea  - One menstrual cycle | Two electrodes on proximal margin of low back area & two others at proximal of gluteal region | Comfortable maximal level | 100 | 120 | Conventional TENS | -VAS | -↓Pain in both G. (P<0.05)  -No superiority existed between the methods (P≥0.05)  No AEs. were observed | No |
| 0-100 (10 min) &  90-100 (10 min) | IFC |
| Schiotz 2007  [29] | -During four menstrual cycles | Suprapubically  OR  lower back | NR | A: 110 | 110 | Biphasic, asymmetrical, rectangular | -VAS  -No. of Ana Tab. | -**↓**Pain in TENS G.  (P= 0.0009)  -**↓**Use of Ana Tab.in the TENS G. (P=0.03)  No AEs. were observed | 6 – 8 months |
| B: 50 | 110 |
| C: 2 | 100 |
| Wang  2009  [27] | -30 minutes at one time  -Two repetitions are allowed  -Two menstrual cycles | Lower back & along lower borders of the ribs and upper borders of the hip crests on both sides | 50 | 200 | 100–120 | NR | -VAS  -Pre-post stimulation measurement  -Autonomic symptoms  questionnaire  -QOL  -AEs | -**↓**Pain in both G. (P˂0.001)  -Change the degree of autonomic symptoms in TENS G. (P= 0.048)  -No difference in QOL in both G. (P=0.17)  Increase in menstrual flow, increase in heart rate | No |
| Parsa  2013  [26] | -20 min at the first day of menstrual complaints | Two electrodes on proximal margin of low back & two electrodes on  proximal of gluteal | Max tolerated level | 90-100 | 0-100 | NR | -VAS  -No. of Ana Tab. | -**↓**Pain in both G. (p<0.01)  -**↓**Use of Ana Tab. in the TENS G. (p<0.01)  No AEs. were observed | No |
| Lauretti  2015  [24] | -30-min duration at eight-hour intervals  (3 times)  -one menstrual cycle | Medially at the suprapubic region | 0  10  20  30 | NR | 85 | Mixed of conventional & burst | -VAS  -No. of Ana Tab.  -QOL  -AEs | -**↓**Pain in Tx G. (P˂0.001)  **-↓**Use of Ana Tab in Tx G. (P˂0.001)  -**↑**QOL in Tx G. (P˂0.05)  No AEs. were observed | Three months |
| Lee  2015  [23] | -30 min (10 min TENS & 20 min thermotherapy)  -Every day until the end of the menstruation  -One menstrual cycle | Lower abdomen | NR | NR | 100–110 | NR | -VAS  -Duration of pain relief  -No. of Ana Tab.  -BPI score  -QOL  -AEs | -**↓**Pain in TENS G. (P˂0.001)  -**↑**Duration of pain relief  in TENS G. (P˂0.001)  -No differences in the BPI scores, use of Ana Tab., and QOL between the groups (P˃0.05)  No AEs. were observed | No |
| Bai  2017  [25] | -30 min  -≤8 days during each menstrual cycle  -Three menstrual cycles | Painful area | NR | NR | 2 - 100 | NR | -NRS  -Duration of pain relief  -No. of Ana Tab.  -QOL  -AEs | -**↓**Pain in TENS G. (P˂0.01)  **-↑**Duration of pain relief in TENS G. (P˂0.01)  -**↓**Use of Ana Tab. in TENS G. (P˂0.01)  -No difference in QOL at two groups (P˃0.05)  No AEs. were observed | No |
| Olsén  2019  [28] | -60 second  -Several times a day  -One menstrual cycle | On each side of the uterus | 40 | NR | 80 | NR | -VAS  -No. of Ana Tab.  -Physical function | -No significant effect of TENS in any of the variables (P˃0.05) | One wash-out period |
| AEs: Adverse effects, BPI: Brief pain inventory, Fr: Frequency, G: Group, IFC: Interfrential current, No of Ana Tab: Number of Analgesic tablet, NR: Not report, NRS :Numeric rating scale, PD: Primary dysmenorrhea, QOL: Quality of life, TENS: Transcutaneous electrical nerve stimulation, Tx: Treatment, VAS: Visual analog scale | | | | | | | | | |