

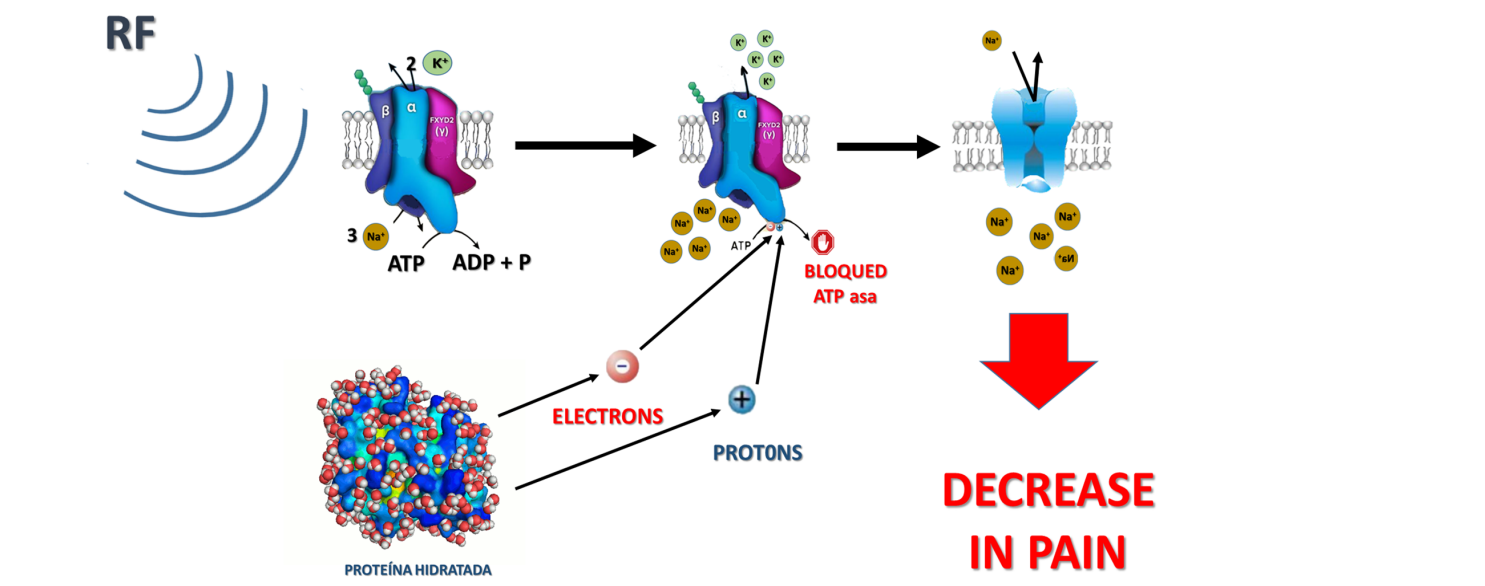
INTRACAVITARY DEVICE IMPROVING GENITOURINARY SYNDROME AND THE APPEARANCE OF THE VULVA.

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Hypothesis / aims of study

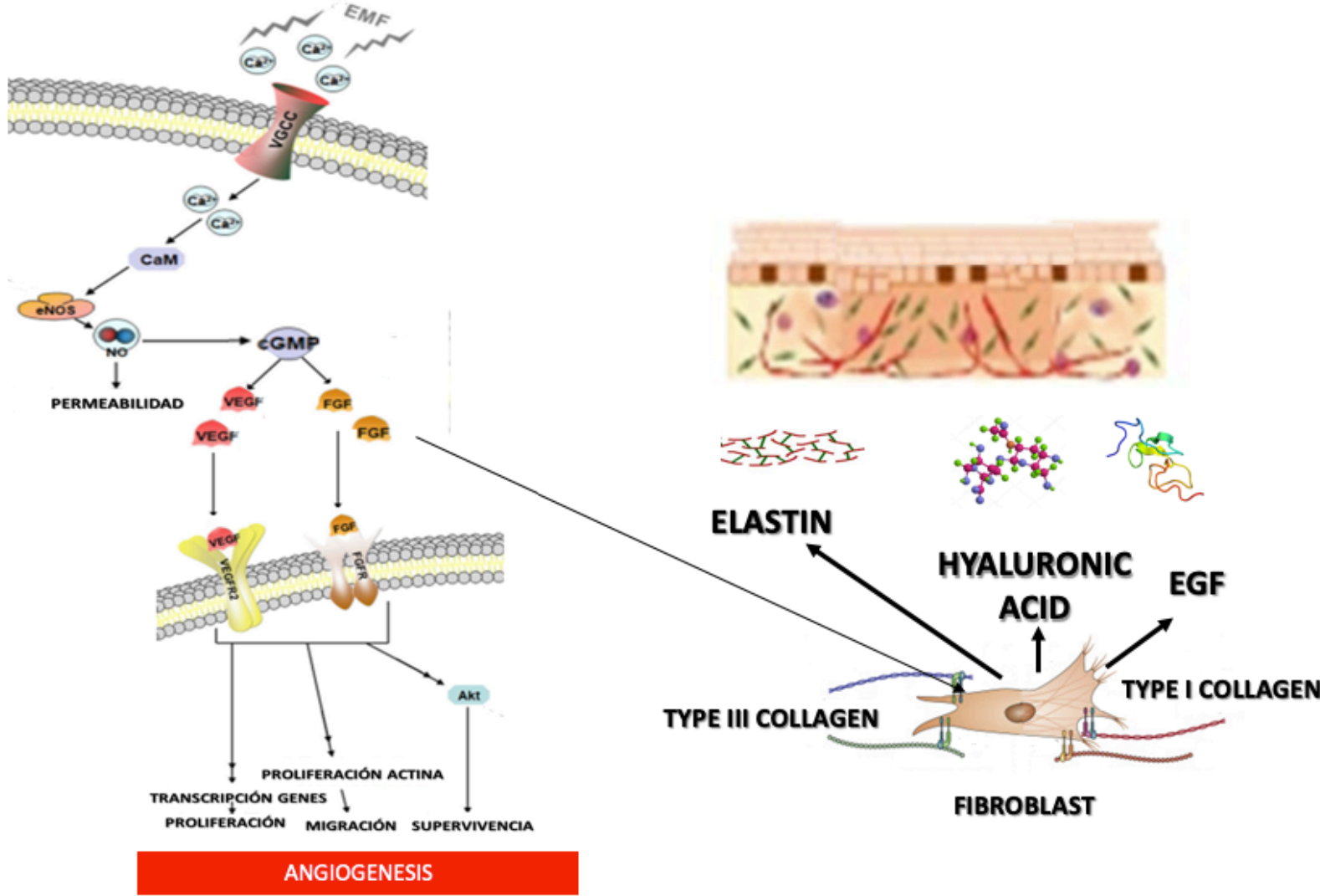
Gynaecological pathologies affect a significant number of women both postpartum and cancer survivors. Usual rehabilitation, although it improves the symptoms, does not achieve all the desired effect. Energy device has been used for years and within these the Laser, the most studied option. However, new generation of TECAR, with a finger-shaped intracavitary device, temperature control in the area of the introitus, allows a greater amount of energy without injuries, is safely applied and temperature to be raised between 40 and 45 °C. This energy induces fibroblasts to produce collagen, activating heat shock proteins and initiation of inflammatory cascade. Increase vascular growth factors, generate new blood vessels, improved circulation, producing increased moisture and roughness of the walls of the vagina and epithelial growth factor improved the skin of the vulva. On the other hand, they release protons and electrons that block the Na⁺/K⁺ ATPase, producing pain relief.



Mechanism of pain reduction in trigger points by blocking Na⁺ / K⁺ ATPase and closing of Na⁺ channels

cGMP = cyclic guanosine monophosphate
FGFR = fibroblast growth factor receptor.
NO = nitric oxide.
NOS = nitric oxide synthase
EMF = electromagnetic field.
VEGFR = vascular endothelial growth factor receptor.
VGCC = voltage-gated calcium channels.
Akt = Protein Kinase B
FGF= Fibroblast Growth Factor
EGF. Epithelial growth factor

CELL SIGNALING



Delle Monache S, Alessandro R, Iorio R, Gualtieri G, Colonna R. 2008. Extremely low frequency electromagnetic fields (ELF-EMFs) induce in vitro angiogenesis process in human endothelial cells. Bioelectromagnetics 29:640–648

Study design, materials and methods

All patients were performed with the same procedure. The active plate placed on the mons pubis together with an intracavitary MJS device were applied. The treatment time was 12 minutes. In total, 100 women were studied, 42 with GSM 30 Vaginal atrophy 30 patients with dyspareunia and 10 cases of vaginal rejuvenation are presented. VAS and the ICIQ Flux Sex questionnaire were administered to all of them.

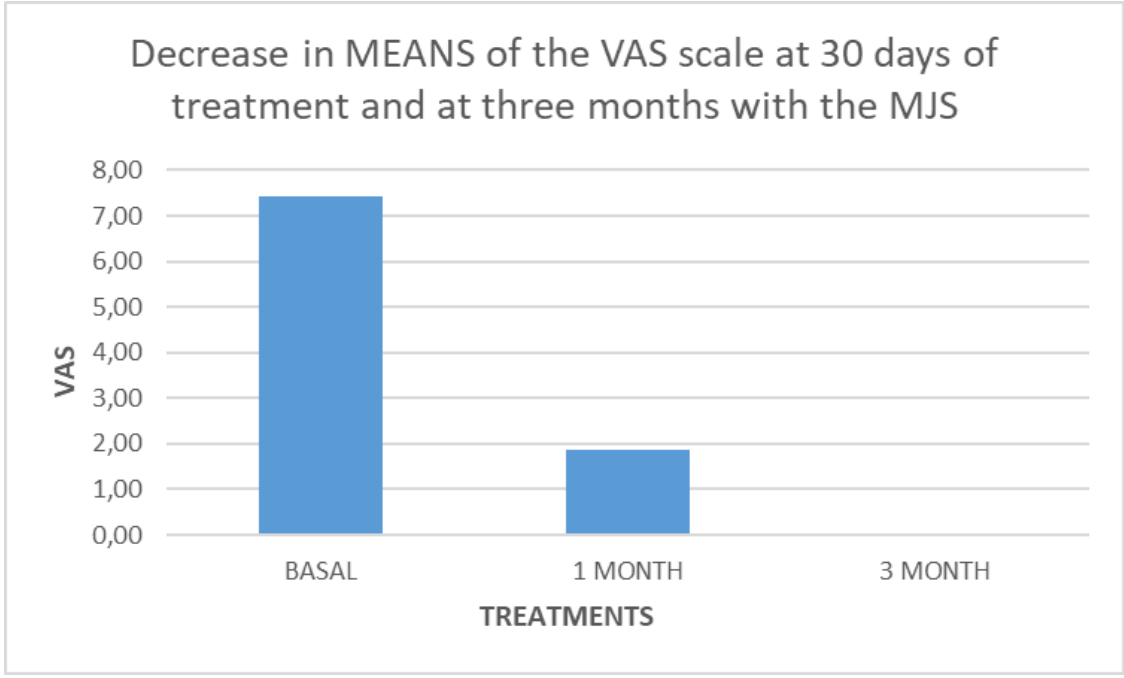


Results and interpretation

With 80%. Changes were found in the pain and strength variables, from 5.90 ± 3.98 to 1.30 ± 2.54, p = 0.002 and from 3.30 ± 1.49 to 4.80 ± 0.42, p = 0.005. 100% improves sexual satisfaction. And from 1.90 ± 0.99 to 4.10 ± 0.56, p = 0.000 for vaginal dryness, 2.17 ± 0.98 to 4.17 ± 0.40, p = 0.003 for laxity. Female Sexual Function Index goes an average of 3.2 to 4.9 (p = 0.002).

Numerical Rating Scale of the symptoms of Genitourinary Syndrome of Menopause before treatment, 1 month and 3 months after 05 radiofrequency sessions.																		
Patient	PRE-TREATMENT					1 MONTH					3 MONTHS							
	VD	SAPain	VL	VI	B	Pain	VD	SAPain	VL	VI	B	Pain	VD	SAPain	VL	VI	B	Pain
1	10	10	0	5	10	0	3	5	0	0	0	0	7	7	0	5	6	7
2	9	8	0	0	0	0	3	0	0	3	0	0	6	0	0	4	0	0
3	10	0	8	10	9	10	7	0	6	9	10	6	5	0	2	9	10	2
4	5	0	10	7	5	0	0	0	8	0	0	0	0	0	7	0	2	0
5	8	2	5	0	0	2	4	0	1	0	1	0	8	1	4	0	0	0
6	7	7	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	1
7	10	0	3	2	4	0	2	0	0	0	0	1	1	0	0	0	0	0
8	10	0	2	0	4	0	1	0	0	0	2	0	1	8	0	0	2	0
9	7	7	0	6	5	7	7	7	2	5	5	7	7	0	3	4	4	7
10	9	8	5	5	8	8	1	0	0	0	0	0	1	0	0	0	0	0
11	10	0	0	0	9	0	5	0	2	0	4	0	1	0	1	0	1	0

VD = Vaginal dryness; SAPain = Pain during sexual activity; VL = Vaginal laxity; VI = Vaginal itching; B = Burni



Conclusions

The high power 1200 Watts per channel that produces molecular movement and internal heat together with the electrical stimulation in the cell membrane increases the production of signals that reduce pain, strengthen muscles and regenerate tissue. Other authors have demonstrated these effects, using other types of energy in a longer period of time, with lesser results 33% of pain reduction and with side effects.



The vulva before treatment, after 6 months and after 1 year.

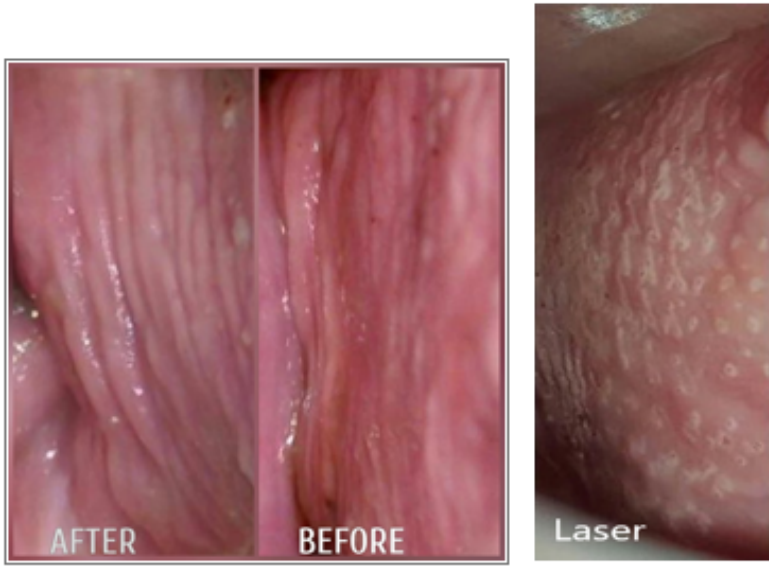


Image of the vagina before and after treatment showing the effects of laser on the vaginal mucosa (Vinicius et Al 2018)

References

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