

ACTUALITES EN REEDUCATION DE LA MAIN BRÛLEE

Charlotte WARAMBOURG M.K.D.E.

D.U. Brûlures

Kiné Lyon EpauLe Main



Constat

- Moins de 1% des recherches cliniques en réadaptation portent sur les brûlures.
- Moins de 1% des essais randomisés en réadaptation sont liés à des brûlures.
- Faible échantillon de patients concernés :
 - 8944 patients en France métropolitaine selon PMSI 2008.



Burnt Hand Outcome Tool (BHOT)

Date _____ Patient identity no _____

Please answer every question, based on your condition in the last week by circling the correct answer. If you did not have the opportunity to perform an activity in the last week, please make your best estimate on which response would be the most accurate.

It doesn't matter which hand or arm you use to perform the activity, please answer based on your ability regardless of which hand or arm is burnt.

Part A: Task specific

Please rate your ability to do the following activities in the last week

	No difficulty	Mild difficulty	Moderate difficulty	Severe difficulty	Unable
1. Open a tight or new jar	1	2	3	4	5
2. Carry a shopping bag or briefcase	1	2	3	4	5
3. Button a shirt or blouse	1	2	3	4	5
4. Eat with a knife and fork	1	2	3	4	5
5. Sign your name	1	2	3	4	5

Part B: General ability to carry out activities

Please rate your ability to do the following activities in the last week

	No difficulty	Mild difficulty	Moderate difficulty	Severe difficulty	Unable
1. Recreational activities which require little effort (eg card playing, knitting, etc)	1	2	3	4	5
2. Recreational activities in which you take some force or impact (eg golf, hammering)	1	2	3	4	5

The following questions relate to the function of your burnt hand. If both hands are burnt, please answer them based on your *worse* hand.

	Very good	Good	Fair	Poor	Very poor
3. How was the strength in your hand?	1	2	3	4	5

	Skillful	Quite skillful	Not too bad	Quite clumsy	Very clumsy
4. When I try to use my hand for fiddly things it is now	1	2	3	4	5

	Flexible	Quite flexible	Not too bad	Quite stiff	Stiff
5. Generally when I move my hand it is now	1	2	3	4	5

Part C: Appearance, scars, pain and sensation

The following questions refer to the appearance (look) of your burnt hand during the past week. If both hands are burnt, answer for the *worse* burnt hand

	Strongly disagree	Disagree	Sometimes agree	Agree	Strongly agree
1. I am unhappy with the appearance of my hand	1	2	3	4	5

Again when considering your burnt hand, or worse burnt hand if both are burnt, please answer the following questions.

	No, it's like normal skin	Slight difference	Not too bad	Definite difference	Yes, very different to my normal skin
2. Is the colour of the scar different to your normal skin?	1	2	3	4	5
3. Is the scar stiffer than your normal skin?	1	2	3	4	5

	No complaints	Slight discomfort	Not too bad	Quite uncomfortable	Worst imaginable
4. Is your hand painful?	1	2	3	4	5
5. Is your hand itchy?	1	2	3	4	5

Part D: Emotional, social and work impact

The following questions refer to how much you did in your *normal work* (including job, housework or education) or *social activities* in the last *four weeks*

	Never	Rarely	Sometimes	Often	Always
1. How often were you unable to do your normal work because of problems with your hand(s)?	1	2	3	4	5
2. To what extent has your hand problem interfered with your normal social activities with friends and family	1	2	3	4	5

During the last week, please circle how strongly you agree with the following statements

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
3. I feel less confident because of my hand problem	1	2	3	4	5
4. I feel less useful because of my hand problem	1	2	3	4	5
5. Generally when I think about my hand I feel very upset	1	2	3	4	5

Spécifique aux brûlures de la main.

Questionnaire valide, excellente fiabilité.

Massage / massothérapie

- 2 groupes de patients adultes brûlés traités pendant 12 semaines :
 - soins habituels,
 - soins habituels + 3 séances de massage par semaine.
- Caractéristiques de la zone brûlée étudiées : élasticité (Cutometer®), érythème, mélanine (Mexameter®) et épaisseur (US haute F).
- Effets immédiats pour toutes les caractéristiques étudiées.
- Aucun effet significatif à long terme.



Nedelec B, Couture M.A, Calva V, Poulin C, Chouinard A, Shashoua D, et al. Randomized controlled trial of the immediate and long-term effect of massage on adult postburn scar. *Burns* 2019;45:128-139.

Resistance training

- 11 études incluses (adultes et enfants).
- Caractéristiques étudiées : force musculaire, masse maigre, fonction, aspect émotionnel et douleur.
- Effets positifs sur la récupération de la force musculaire et l'amélioration de la qualité de vie psychologique MAIS qualité de preuves faible !
- Aucun effet significatif sur l'augmentation de la masse maigre et la douleur.
- Etudes jugées à haut risque de biais.

Gittings P, Grisbrook T, Edgar D, Wood F, Wand B, O'Connell N. Resistance training for rehabilitation after burn injury: A systematic literature review & meta-analysis. *Burns* 2018;44:731-51.



Interactive gaming consoles



- 22 patients : brûlures mineures aiguës.
- Caractéristiques étudiées : douleur, mobilité et kinésiophobie.
- Groupe contrôle : rééducation conventionnelle.
- Groupe intervention : 20 à 30 min Wii, 2/jour pendant 5 jours.
- Baisse de 17% des scores de douleur.
- Aucun effet significatif sur la mobilité et la kinésiophobie.

- 30 patients : brûlures mineures membre supérieur.
- Caractéristiques étudiées : douleur, fonction MS, kinésiophobie, durée séance et satisfaction traitement.
- Groupe contrôle : 30 min rééducation conventionnelle, 2/jour.
- Groupe intervention : 15 min rééducation conventionnelle + 15 min Xbox, 2/jour.
- Augmentations significatives de la durée des séances et de la satisfaction du traitement.
- Xbox Kinect significatif pour la douleur, la fonction M...

Parker M, Delahunty B, Heberlein N, Devenish J, Wood Jackson T, et al. Interactive gaming consoles reduced pain during acute minor burn rehabilitation: A randomized, pilot trial. *Burns* 2016;42:91-96



Voon K, Silberstein J, Franki A, Phillips M, Wood J, et al. Xbox Kinect™ based rehabilitation as a feasible adjunct for minor upper limb burns rehabilitation: A pilot RCT. *Burns* 2016;42:1797-804



CONCLUSION

- Burnt Hand Outcome Tool (BHOT)
- Massothérapie +/-
- Resistance training : à creuser !
- Penser à acheter une Nintendo Wii... et une Xbox Kinect™ !

