International Online Breast Cancer Rehabilitation Summit 2016
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Good morning everyone, my name is Laura Mutti, I am a physiotherapist and in this conversation I will speak about the treatment for axillary web syndrome in the hospital where I work which is Carlo Poma Hospital in Mantova/ Italy.

In 2008, with Oncologist and surgeons we prepared a protocol that provides for the rehabilitation of patients that have undergone an axillary dissection. A small percentage of them is made up of patients with melanoma, but in most cases they are women that underwent surgery for breast tumor pathology. For the time being the protocol provides for a treatment just for the patients that have undergone an axillary dissection, however surgeons and oncologists refer to us other cases, for example after the biopsy of the sentinel node where they can face the same problems.

The rehabilitation protocol provides for three different times/ moments: an educational meeting that happens in the preparatory stage, treatment in the breast centres that happens from the first day after surgery and the out- patient treatment which is the treatment that is done after discharge from hospital. The patient will come into our outpatients clinic for treatments of about 45 minutes each when the upper limb and the cervical spine get immobilized. Once the dressings have been removed we will work on the scars.

We can therefore say that the rehabilitation protocol we have developed provides for immediate care of the patient from the moment when it is evident the need for a surgery and this allows us to respond in a quick way to any kind of problem.

For instance we can say that we are able to detect the cording or axillary web syndrome even before their clinical evidence. Actually the first moment when mobility can be rated as good and with the presence of breast and axillary scars the patients will begin to report a feel of tension especially when they flex or abduct the limb. This tension can be felt at the armpit, down to the elbow or even the wrist. In this stage the cord cannot be either visible nor palpable.

Later the cord or cords become palpable and visible. With the treatment it can elongate it, but then it can also become tightened and very painful so much as to prevent the normal daily activities of the patient. In this stage when mobility is still good and generally some tension is experienced - we look carefully at the patient's arm -placing it in its maximum extension it will be possible to notice if the skin is curved inwards as if it is been sucked in from structures inside the limb.

In this moment our intervention is inevitably limited, we can try to elongate these structures by massaging the areas where the tension is felt using an open hand with a sort of slow kneading that becomes gradually more intense. It has to be gradual because working on the cords is painful, even temporarily, therefore it is indispensable to pay much care and attention. If the

patient is able to make some simple exercises she gets urged to do them in order to preserve the outcome obtained from the session.

Here we see the exercises we are proposing the patient and they can be done without having any particular structure; here it will be sufficient to have a corner in one room, with the patient with her arms spread out trying with her nose to get closer the corner. Here we see the same exercise made with bent elbows, the patient has to reach a position where she feels tension- it is important to not be painful, she will maintain her position for 5-10 seconds and then she will relax and go back.
Here we have used a wall but it could also have been the door's jamb, where our aim is to get this angle wider, between the arm and the hip. In this other example we have used a radiator but it may also have been a shelf, the mode is always the same - trying to reach a stage where the tension is felt, staying some seconds in this position and then relax the tension.

All this has to be repeated about 10 times. With the passing of times the cords become at first palpable and then visible too. They can be thin like the strings of a violin, they can be single ones or be joined together in small bundles or we can have a single pretty wide cord of about 1 cm. in diameter. I have also had a case of a big cord that after treatment had split in two smaller ones. In this stage too we can proceed with the kneading we saw before and if we are treating a single cord it can also be done this way.

At times the patients report such a strong pain that flexing or abducting the arm corresponds to bending the elbow as well. This patient was an employee and she couldn't go to work because when she rested her arm on the desk automatically and painfully her wrist would bend. So in this case with very tense cords we will proceed with what we have called “Strong Elongation”, which is an operation that breast surgeons have taught us. I will do it this way:I will place my thumb on the spot I feel is the origin of the cord which usually is close to the armpit scar; with the other hand I will push on the cord and then will move my hand in the next distal position reaching the elbow or if necessary even down to the wrist, because I can feel the cord up there. If I am treating a single cord I can also use this other mode, the implementation being the same. This treatment method lasts few seconds but can be very painful, this video is shot in real time so you can appreciate the duration of the operation, here I am pressing on the root of the cord and then I am moving the other hand along the course of the cord itself.

Let me tell it again, this takes only a few seconds but can be very painful. Here you can see the reddened skin and can appreciate the pressure I am working with. During this procedure you can also hear a series of popping, as referred in some articles, that can be interpreted as cord breaking, but they have no negative outcome and usually some degrees of movement are achieved immediately.

A factor that has always to be controlled when there is difficulty in reaching and maintaining extreme positions is the status of the drainage scars. These scars are particular because they are quite small at surface level, but actually they are very deep. When during the movement - it

may seem the scar has been sucked in by the underlying structures, we can treat it with a sort of vacuum therapy. From our colleague Elizabeth Josenhanns from Hamburg I have learned to use these glass bowls which are used in Chinese medicine. By creating a vacuum they disentangle the tissues one from the other. The goal of our service is to bring the patient to have the maximum possible joint mobility having less pain as possible; sometimes when this goal has been achieved there will still be some cords, we will delegate the patient to self treatment to attempt to elongate them further.

If chemotherapy is not provided for, but just radiotherapy, this will be done quite close to the surgery, so in this case it will be critical to achieve the widest movement possible in the lesser amount of time, so the patient will be able to maintain the positions required by radiotherapy.

Finally I can say that the techniques we are using are the fruit of exchanging experiences between the people that are working on these pathologies. Because the times for scientific research, that are necessary, are quite long, this is why it will be very important in the meanwhile to share and spread what we know and our experiences as much as possible. Because someone's know- how will turn into everybody's. Thanks to everyone for the attention and especially to Denise who gave me the chance to share with you what I know and practice. I wish good work to everyone.