

# Yamamoto New Scalp Acupuncture (YNSA):

# Treatment of the Apoplectic Seizure and Application in Emergency Medicine

# Thomas Schockert

Yamamoto New Scalp Acupuncture has become more and more popular worldwide over the last forty years. Scalp acupuncture is now the second most often used microsystem in the world of acupuncture after ear acupuncture. YNSA is popular in neurology, orthopaedic medicine, pain therapy and in emergency medicine, due to its easy handling, reliability and its immediate effectiveness. In the following article the application of YNSA in an acute apoplectic seizure is illustrated by means of a case study.

Umlauf, in his book "Acupuncture in Emergency Medicine" [1] published in 1994, already described and recommended acupuncture points as well as points of various micro systems as being very effective in the treatment of serious and threatening illnesses. There are also articles on the use of YNSA in emergency medicine in international literature [2,3,4,5].

Acupuncture is a useful additional tool in emergency medicine, in particular in analgesia and in the treatment of apoplectic seizures. Acupuncture can be seen as a form of evidence-based medicine. This has been particularly true since the publication of the GERAC- and ART studies on the treatment of knee and back pain [6,7]. Although research in acupuncture is carried out worldwide and acupuncture is also used in emergency medicine [8,9,10,11], acupuncture cannot generally be counted as part of evidence-based emergency medicine (EBEM) [12]. The necessary research still needs to be done.

## **Areas of Application**

Acupuncture provides an efficient and complementary option to the current therapies used in academic emergency medicine. The application of acupuncture in emergency medicine could become standard for ethical reasons but also for the economic reasons of saving costs. Over the past years I have often used YNSA effectively as the sole or as a supporting treatment in emergency medicine in the following areas:

- => acute apoplectic seizure
- => various **forms of pain**
- => acuite kidney colic
- => alcohol intoxication
- => dyspnoea due to asthma

YNSA, in particular, like other micro systems, offers the possibility to provide an efficient therapy using only a few acupuncture points.

In the treatment of asthma I have often used the parietal Yin-Ypsilon points of the lung, the cranial nerve point of the lung, together with the YIN basal point E as a sole or a supporting treatment. My experience has shown that the positive and calming effect of acupuncture in the case of asthma are at least as effective as treatment via intravenously applied medicine.

As ambulances are not generally equipped with catheters, the use of YNSA for treating pain due to urine retention can be a useful option particularly in rural areas to ease the trip to hospital or even to make it unnecessary.

#### **CIRS: Critical Incident Reporting System**

What is going wrong in emergency medicine is clearly documented in CIRS in a sad way. In cases of sudden severe headaches patients were injected with Aspisol as an analgesic. The patients (among them my sister-in-law) then died as a result of the existing cerebral haemorrhage. Acupuncture would probably have caused less damage.

There are several cases in CIRS where, in retrospect, the use of acupuncture would have been justified.

#### Methods and Practical Applications of YNSA

The Japanese physician and scientist Toshikatsu Yamamoto developed the system of scalp acupuncture which was then named after him (Yamamoto New Scalp Acupuncture - YNSA) [21,22,23,24] in the late 1960s. He presented the acupuncture method which at that time consisted of **5 basal points** for the first time at the Ryodoraku Congress in Japan in 1973. For the next ten years Yamamoto used only these five basal points which are still successfully employed in daily practice. Additional therapy points can be used as well. Acupuncture needles are applied ipsilaterally at these basal points for pain therapy while for the treatment of paresis they are applied contralaterally to the paretic side.

YNSA is a special form of traditional acupuncture and is the second most frequently used microsystem world-wide after ear acupuncture. The method is based on a **somatotope on the scalp**. In the same way as with ear or mouth acupuncture, the entire organism is projected here on a defined area of the scalp. The locomotor system is at the boundary of the forehead and hair, whereas the internal organs are represented via Y points on both temples.

Scalp acupuncture distinguishes a yin somatotope at the front of the scalp and a yang somatotope at the back of the scalp. With the aid of the special hand-, arm-, neck and abdominal wall diagnostics, the associated therapy points in the temples or the corresponding cranial nerve points are revealed via pressure-sensitive points. The neck diagnostic enables the practitioner to decide whether to treat the frontal Yin or the dorsal Yang areas [25]. As a representative of each meridian, there is a pressure point on the neck and an associated treatment point in the region of the temples. If, for example, the kidney point is sensitive to pressure on the neck, the needle is applied to the corresponding Y point in the temple. If the needle has been correctly positioned in the temple region then the pressure sensitivity in the neck disappears as a result and thus provides verification for correct positioning of the needle.

Further somatotopes such as the pelvic- or thorax somatotope and the C6-Th2 somatotope as well as the basal points B,C,F,G,H and the additional points can be used without neck diagnostics.

#### Fundamental principles:

- a) Only apply needles to pressure-sensitive areas.
- b) The more precisely the needles are applied, the more effective they will be.
- c) If possible always use diagnostic systems.
- d) In pain therapy always apply needles ipsilaterally unless a diagnostic system determines a different method.
- e) In the treatment of paresis needles are applied contralaterally to the paresic side unless a diagnostic system determines a different method.
- f) Points of all somatopes can be combined.
- g) Several needles can be applied to one YNSA-point to increase the effectiveness.
- h) All acupuncture points can also be stimulated via acupressure or by laser.



Illustration 1: YNSA basal, brain and sensory points. (© Manfred Möthrath (photo studio Courté))

# Treatment Options with YNSA in an Acute Apoplectic Seizure

YNSA: Basal points Yin A, C, D contralateral

Brain- or cranial therapy points according to neck or abdominal wall diagnostics:

- => paralysis of the upper extremities: I-somatotope, master key therapy point for the upper extremities contralaterallly
- => paralysis of the lower extremities: I-somatotope, master key therapy point for the lower extremities contralaterally
- => hematocrit more than 44% or haemoglobin more than 15 g dl isovolemic hemodilution should be taken into consideration [26]

In the paramedic service it has proved of value, directly after the diagnostic blood test and the determination of the hematocritic test result (photometer in the ambulance) to drain ca. 150-200 ml of blood via an intravenous access. Alternatively the blood can be drained into an infusion bottle after the infusion of 200 ml of the infusion solution and then it can be disposed of. Ideally a 200 ml vacuum flask can be used.

The basic idea is to improve the perfusion of the brain via an immediate "mechanical" thinning of the blood [27]. This procedure was specifically recommended by Prof. Dr. Louis R. Caplan, Harvard Medical School, when asked at the Asian Pacific Stroke Conference (APSC). Blood letting lowers not only a high hematocrit level (immediate improvement of rheology) but also effectively lowers elevated blood lipids (images 2 and 3 showing extraction of lipids into a vacuum flask in an ambulance).



Illustration 2: Isovolemic Hemodilution in the Ambulance. (© Dr. Thomas Schockert)

## **Case study**

*Emergency call: Acute dyspnoea, on 13.06.2014, patient: M.W., born 09.01.1935 (name changed for data protection reasons)* 

When the paramedics and ambulance arrived the patient was found to be generally debilitated, famished and dehydrated. He did not react when spoken to. His last bowel movement was 5 days previously (constipation due to Opiat Targin). According to the nursing staff the patient had not spoken for the last hour, and his skin was mottled. The patient had apparently suffered an apoplectic seizure several years previously.

The typical symptoms were his right fist pressed to his upper body, a spastic right arm, and immovable right hand and arm. In the auscultation all regions of the lungs were completely free with no rattling or spasms. The abdomen was bloated and drum-like, very few noises from the intestines, extensive meteorism.

# Systolic blood pressure: 80, pulse: 130, blood sugar: 289, pSo2: 87 %

An intravenous access was applied and "Ringer" solution was given as well as oxygen, followed by YNSA treatment. Due to the spastic hemiparesis on the right YNSA was applied on the left side of the scalp.

#### After throat diagnostics

- The needles were set on the cranial nerve point No. 1, the olfactory point and basal point C. Three needles were set in the left I-somatope and a spike was applied to the anti-spastic point on the left second toe.

The journey to the next hospital took 25 minutes. After ten minutes the patient, without being asked, raised his right arm in order to grasp the infusion stand. The patient then drew his right hand across his face, scratched himself and raised his right arm again towards the ceiling. He opened his hand completely, the fingers of his right hand were outstretched and totally movable.

According to his daughter the patient was able to freely use and move his right arm, and in particular his right hand, until his death in May 2016.



Illustration 3: Elevated blood lipids can be separated in the vacuum flask. (© Dr. Thomas Schockert)







Illustration 5: Basal points C and D; 3 needles in I-somatope left parietally. (© Kerstin Brandhoff-Wahlen)



Illustration 6: Spastically paralysed right arm is close to the body. (© Kerstin Brandhoff-Wahlen)



Illustration 7: Patient suddenly lifts his previously paralysed right arm without being asked. (© Kerstin Brandhoff-Wahlen)

### Discussion

YNSA therapy as a complementary application in emergency medicine can be taught in a few days in a workshop if the participants have some prime knowledge of acupuncture. It promises an enrichment of the analgesic and therapeutic possibilities open to emergency doctors. YNSA is particularly effective in the treatment of pain in the locomotor system and with paresis. YNSA also produces some amazing immediate results in a similar way to the phenomena known in neural therapy according to Huneke.

Various applications of different forms of acupuncture -including acupressure- in emergency medicine have been described in international literature. These are sometimes accompanied by unwanted side effects if applied incorrectly [13,14].

In the library of the American health authority NIH pubmed "Medline" exactly 25477 scientific publications [28] appeared in November 2016 when the search term "acupuncture" was typed in. The enormous effect and great value of acupuncture and also acupressure in emergency situations have been described in publications by Umlauf [1], Streitberger [29], Fleckenstein, Schottdorf, Irnich [8], Niemtzov [17], Barker, Kober, Hoerauf [30], Chen [10], und Schulé [11].

Acupuncture, in my opinion, is particularly suitable for the acute treatment of apoplectic seizures. According to Prof. Dr. med. Babak Boroojerdi, Dept. of neurology at the University of Aachen (RWTH), acupuncture is in no way contra indicated for patients with acute vascular obliteration. A lysis is at any time possible after YNSA. My experience shows that NO valuable time is lost through acupuncture treatment, because only 3-7 needles are necessary for a patient-centred optimal care.

For patients suffering from acute intracerebral bleeding there is NO alternative therapy option available at the present time. Dr. Yamamoto established the hypothesis that YNSA reduces cerebral oedema. For this reason YNSA should be applied in the case of an apoplectic seizure as early as possible.

YNSA has been objectively tested by methods such as real time ultrasound topometry, fMRI and PET-CT [31,32,33,34]. The use of non-metallic acupuncture needles permits further YNSA research via fMRI [35,36].

Let us hope YNSA can contribute to relief and cure of the affected patients in the future.

Richard Niemtzow, chief editor of the American acupuncture journal "Medical Acupuncture", writes in his editorial for the edition 1/2009 concerning YNSA:

"Speaking of "healers," our congratulations and thank you, Dr. Toshikatsu Yamamoto, for your gift to the world of Yamamoto New Scalp Acupuncture (YNSA) on this your 35th year. May YNSA be spread all over the world to serve and support suffering patients even more in the future" [37].

### Outlook

Well-established emergency medication can also have potentially serious side-effects. When the number of serious side effects of traditional medicine is considered, the safety aspect of acupuncture can only be emphasized. According to Steve Bhaerman and Bruce Lipton [15] "death by medicine" is the most frequent cause of death in the USA. It is also worth considering whether the supportive use of acupuncture can reduce the number of serious medication side-effects as acupuncture has a regulating, calming and stabilising influence. The reference to the use of acupuncture in American military medicine seems to me to be important and interesting. The most important argument for the use of acupuncture in this context is the fast and reliable effectiveness of the treatment [16,17].

The description of the use of NADA acupuncture [18,19] as applied during the aid activities following the earthquake on Haiti was impressive, encouraging and moving. The patients treated in this way reacted extremely positively to acupuncture and were grateful for this kind of help [20].

The fact that acupuncture and complementary medicine is well-accepted by the general population simplifies the use of these treatments in emergency medicine.

A training of emergency doctors and paramedics in these methods is desirable. In the mid-term the training of flight assistants and other lay personnel in acupressure could be considered. Acupuncture will hopefully also find a place in the treatment of emergencies on board ship, in mountain rescue and on board planes. Treating onlookers as well as relatives of patients in emergency situations could soon become the norm.

In this context a positive aspect is that acupuncture treatments certainly do not represent any great additional costs for the health service.

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YNSA training	g consists of three workshops in small groups						
of up to 21 participants.							
Workshop 1:	Introduction to Yamamoto New Scalp Acu-						
	puncture (YNSA)						
Workshop 2:	Advanced YNSA						
Workshop 3:	YNSA Refresher (e.g. also for those colleagues						
	who learnt YNSA before 2005)						
	YNSA training of up to 21 pa Workshop 1: Workshop 2: Workshop 3:						

Information: www.ynsa.net

**Conflict of interests:** The author is a lecturer for Yamamoto New Scalp Acupuncture (YNSA), YNSA in emergency medicine, YNSA in dentistry at the Private University of Witten/Herdecke.



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