



## Epilepsy in the Mediterranean area: past, present and future L'épilepsie dans la région Méditerranéenne: passé, présent et futur



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There is no other place in the world that equals the Mediterranean in terms of the number of cultures and civilisations that have sprung from its shores and moved across its waters to cross-fertilise one another. People started sailing the Mediterranean in prehistoric times – in search of new settlements and raw materials or to exchange goods and other artefacts – and this led to an increasing awareness of the affinities and diversities of the various communities overlooking a sea that has shaped the destinies of three continents. These experiences were often associated with dreadful conflicts, but also with fruitful cultural exchanges that allowed the gradual development of a feeling of mutual belonging.

The oldest documents in Egyptian, Assyrian and Hebrew literature bear witness to a knowledge of epilepsy, but combine their highly precise descriptions of epileptic phenomenology with the misconceptions about its nature that led to epilepsy being attributed a supernatural origin and formed the basis of the many centuries-old prejudices that we are still fighting today. Nonetheless, it is worth remembering that the first statement providing epilepsy with sound scientific coordinates was pronounced by Hippocrates from the Mediterranean island of Cos as long ago as the fifth century BC: «It is thus with regard to the disease called sacred: it appears to me to be in no way more divine nor more sacred than other diseases. The brain is the cause of this affliction”.

The heritage of Hippocrates' far-sighted conception can be traced in subsequent Byzantine and Arab medicine, although magic/religious interpretations continued to abound and permeated the views of the Jewish, Christian and Islamic religions that flourished in the Mediterranean basin. The overall Jewish perception of epilepsy was that of divine punishment for a sin occurring as a result of a demonic presence [1] and, accordingly, people with epilepsy were excluded from the priesthood [2]. This concept was inherited by the Christian church and the New Testament describes Jesus Christ healing people with epilepsy by driving out the unclean spirit possessing them. In the darkest times of the medieval the Christian world, patients with epilepsy were even condemned to the stake so that they could be liberated from their satanic masters [3]. In Islamic medicine, Hippocrates' views were reflected in the writings of Ibn Sin' and Ibn Rushd (currently known in northern Mediterranean countries as Avicenna and Averroes), who maintained that epilepsy was a natural disease; however, the XI century Arab surgeon Abu'l Qasim al-Zarrawi believed that epilepsy

was demonic [4] and, in Persian medicine, madness and epilepsy were both believed to be due to possession by jinn, supernatural beings capable of entering the human body and causing all sorts of trouble [5]. However, the Hippocratic approach continued to exert its influence through the Schola Medica Salernitana, which was founded in the XI century and, after going through a revival in the Renaissance when the humours became the leading concept in medicine, endured until the XIX century. The same century saw the birth of modern epileptology in another Mediterranean country, France, as a result of the work of Philippe Pinel, Jean Etienne Dominique Esquirol and Louis Jean François Delasiauve.

Since then, many other distinguished scientists from Mediterranean countries have made substantial contributions to the development of epileptology and promoted the spread of new information. It is not possible here to give all of them the credit they deserve, but I must mention the leading role of Marseille, where Henri Gastaut and Jo Roger created a school that became a global reference point for XX century epileptology and where people from France, Italy, Spain, Tunisia, Algeria Greece and other Mediterranean countries were trained and further contributed to its excellence. As a result, many collaborative projects united the European, African and Asian shores of the Mediterranean and strengthened the idea of a Mediterranean epilepsy community, one example of which were the collaborative studies carried out in France, Spain, Italy, Algeria and Tunisia that led to a very precise description of a type of progressive myoclonus epilepsy [6] that was long referred to as Mediterranean myoclonus (by analogy with the so-called Baltic myoclonus). The subsequent combination of Scandinavian and Mediterranean observations made it possible to identify the common genetic mechanism of what is now called progressive myoclonus epilepsy EPM1 type [7,8].

This was background that prompted me to organise the first Mediterranean Epilepsy Conference, which was held in Taormina (Sicily) on 16 May 1990 after the 7th Joint Meeting of the Italian, French, Portuguese and Spanish Leagues. Other than these, only four Mediterranean already had an established League Against Epilepsy and were represented at the Conference by League officers; the delegates from the other countries were identified through diplomatic channels. The participating countries and the respective delegates are shown in Table 1.

**Table 1: Countries and delegates at the first Mediterranean Epilepsy Conference.**

1	ALBANIA: Ali Kugo, Gazmend Drishti
2	ALGERIA: Djamel Grid, President of the Ligue Algerienne contre l'Epilepsie
3	FRANCE: Pierre Jallon, Past-president of the Ligue Française contre l'Epilepsie
4	ISRAEL: Judith Manelis, President of the Israeli League Against Epilepsy; Pinchas Lerman
5	ITALY: Giuliano Avanzini, Past-president, and Raffaele Canger, President of the Italian League Against Epilepsy; Raoul Di Perri; Luigi Specchio
6	LYBIA: Radharkrishnan Kurupath (did not obtain a visa and could not attend the meeting)
7	MALTA: Antony Galea Debono
8	MOROCCO: Reda Ouazzani, Secretary of the Ligue Marocaine contre l'Epilepsie
9	PORTUGAL: Rosalvo Almeida, Secretary of the Liga Portuguesa contra a Epilepsia
10	SPAIN: Luis Oller, President of the Liga Española contra la Epilepsia
11	TUNISIA: Amel Mrabet, Monia Haddad
12	TURKEY: Fevzi Aksoy
13	YUGOSLAVIA: Dragoslav Ercegovac, President of the Yugoslav League Against Epilepsy
Cyprus, Egypt, Greece, Lebanon, Syria did not reply to their official invitations	

The cover of the programme was enriched by a picture of taken from the Tabula Rogeriana drawn by the Arab geographer Al-Idrisi in 1154 for the Norman King Roger II of Sicily (Figure 1).



**Figure 1: Muhammed al-Idrisi, Tabula Rogeriana.**

Muhammed al-Idrisi was born in Ceuta, which then belonged to the Moroccan Almoravids, travelled across Mediterranean, and died in Sicily where he lived at the Norman court. His map of the Mediterranean was chosen as a symbol of the integrated Mediterranean culture. The conference provided the audience with a comprehensive picture of epilepsy care in the Mediterranean area, and gave the delegates an opportunity to interact in a way that led to fruitful collaborations. It was decided to repeat the initiative in the following years, and this was facilitated by the International League Against Epilepsy (ILAE) whose President, Pete Engel, gave the Task Force for Inter-Regional Organisations the task of supervising the Mediterranean epilepsy conference programme. I served as the Task Force Chair until 1998, when Cigdem Ozkara took over from me. The Mediterranean conferences, which were held from 1990 to 2001, were so successful at promoting the development of epileptology that eight new national epilepsy societies were created during this period and were accepted as ILAE Chapters. Table 2 provides a list of the Mediterranean conferences with their locations

and organisers. The philosophy of the conferences was to privilege the active participation of the largest possible number of delegates rather than giving the podium to prominent invited speakers in the belief that interactions among peers is the most productive form of education. The success of the meetings was due to the enthusiasm of the participants and the personal engagement of the organisers, which also meant that they could be held with a very limited budget.

**Table 2: Locations and organisers of the Mediterranean Conferences.**

1st Mediterranean Epilepsy Conference: Taormina (1990): Giuliano Avanzini
2nd Mediterranean Epilepsy Conference: Malta (1992): Antony Galea Debono
3rd Mediterranean Epilepsy Conference: Istanbul (1994): Cigdem Ozkara
4th Mediterranean Epilepsy Conference: Hammamet (1996): Amel Mrabet
5th Mediterranean Epilepsy Conference: Montpellier (1997): Michel Baldy-Moulinier
6th Mediterranean Epilepsy Conference: Cairo (1999): Faruk Koura
7th Mediterranean Epilepsy Conference: Athens (2001): Athanasios Covanis
8th Mediterranean Epilepsy Conference: Marrakech (2004): Najib Kissani

After 2000, during the presidencies of Pete Engel and myself, the ILAE decided to reorganise itself on the basis of the WHO model, and so the Mediterranean ILAE Chapters were divided between the European and Eastern Mediterranean Regions. The newly formed regions were encouraged to organise their own Regional Congresses every other year, making it irrational to continue the series of the Mediterranean Conferences (figure 2). However, this did not affect the feeling of belonging to a unitary community, and exchanges and collaborations between epileptologists from different Mediterranean countries are still very active and productive. Meetings are important in the life of scientific communities, but I believe that the most effective force driving human development arises from the spontaneous interactions of people who recognise their common cultural roots. The North Africa and Middle East Epilepsy Journal has been created in order to provide a forum for the scientific papers of students from the Eastern Mediterranean ILAE Region and I wish it every success in this primary aim. However, if it were to attract articles from Mediterranean countries outside its reference region, this would contribute to fostering the idea of the Mediterranean epilepsy community in which I still strongly believe.



**Figure 2: Series of the Mediterranean Conferences.**

## **References**

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