

## The General Hospital of Mexico “Eduardo Liceaga” 37 years after the great earthquake

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On September 19, 1985, at the General Hospital of Mexico “Eduardo Liceaga,” a new day had begun and all the staffs began their activities without stopping, in the operating rooms, the alarms of the monitors were heard, the expulsion rooms receiving new life and in some saying goodbye to others. The medical, paramedical, administrative, and student staff came to work with enthusiasm, all without knowing what would happen that day. The Hospital occupied an area of 115,000 m<sup>2</sup>,<sup>1</sup> being its general director Dr. Rodolfo Díaz Perches<sup>2</sup>.

That same morning at approximately 7:17:47 am, there was an earthquake with an epicenter in the Pacific Ocean, off the coast of Michoacán. Its magnitude was initially estimated at 7.5, although it later turned out to be a magnitude of 8.1 on the Richter scale.

Its impact was felt in the central part of today’s Mexico City (CDMX) and in the states of Michoacán, Guerrero, and Jalisco, and to a lesser extent in Colima.

The earthquake had particular characteristics since, in addition to its magnitude, there were effects on the radiation pattern of the seismic source during its duration. The first gave rise to a focusing effect of the released energy that spread directly to CDMX, located 400 km from the epicenter, in <2 min. Its duration, estimated at 90 s, made possible the accumulation of resonance effects, produced by the lacustrine sediments of the Valley of Mexico Basin. In addition, abnormally, the earthquake had among its multiple aftershocks, one that reached a magnitude of 7.5°, on September 20 at 19:37:13 local time (01:37:13 UTC). In

CDMX, the areas that most strongly felt the effects of the movement were the center of the city, as well as the delegations, Benito Juárez, Venustiano Carranza and Cuauhtémoc, just the latter where the General Hospital of Mexico is located<sup>3</sup>.

Inside the General Hospital of Mexico “Eduardo Liceaga,” a horror story was lived; in it, there were several modifications that had been made some time before, it presented two main sets, an old one made up of one or two-story buildings, and a recent one, made up of the six-story Obstetrics and Gynecology Unit, with 222 census beds; 22 intensive care and recovery, 132 cradles registered; and the 8-storey medical residence with 56 rooms with four beds each, that day due to the earthquake these two buildings collapsed (Fig. 1).

The earthquake caused significant losses and damage to the institution’s facilities and infrastructure. The most regrettable of these losses is, without a doubt, that of a group of doctors, nurses, paramedical, and administrative personnel who died in the line of duty (Fig. 2).

At the time of the collapse of the obstetrics and gynecology unit, there were 385 people, 155 adults died, 26 were rescued alive, and 47 were reported missing. In the facilities, there were 157 newborns, 94 of them dying, and 63 being rescued alive. About 64% of the people who lost their lives in that unit. In the building that corresponded to the medical residence, there were 86 residents of whom 46 died (53%) and 40 were rescued alive. This represents a total of 295 people dead, 129 rescued, and 17 missing.

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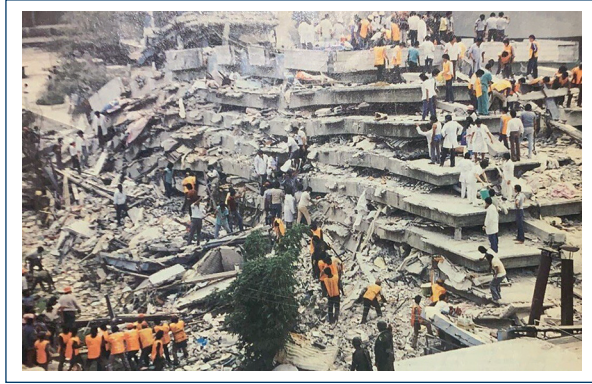
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**Figure 1.** Medical residence General Hospital of Mexico "Eduardo Liceaga."



**Figure 2.** General Hospital of México "Eduardo Liceaga."



**Figure 3.** General Hospital of Mexico "Eduardo Liceaga." Personal collection Dr. Raúl Cicero Sabido.

The rescue was a primary activity, causing great hopes of finding survivors, but these diminished as the hours passed. The rescue maneuvers took approximately 20 days, since it became difficult to remove the

debris from the collapsed buildings (Fig. 3). During the first 48 h, the greatest number of survivors was rescued. Two doctors were rescued on the 5<sup>th</sup> and 7<sup>th</sup> days, one newborn on the 7<sup>th</sup> day, who unfortunately died of pulmonary hemorrhage, and another on the 9<sup>th</sup> day, who survived without complications. Furthermore, during these days, 295 bodies were rescued<sup>4,5</sup>.

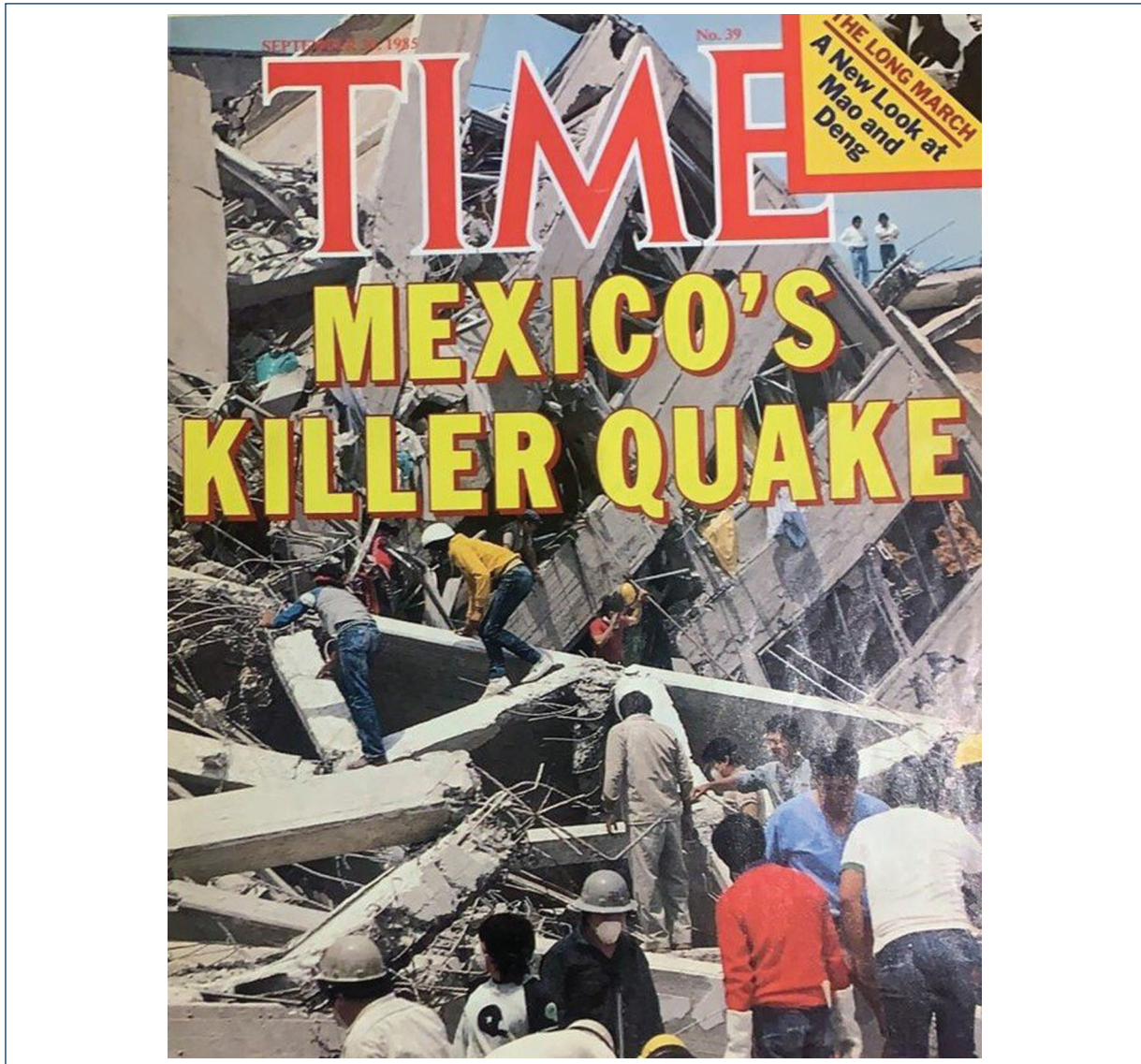
The media from all over Mexico and even from the United States and other countries devoted a few hours or a few pages to report on this terrible event.

In the magazine *Proceso*, in its number 465 of September 30, 1985, the following title was read: "Mexico in shock a present in ruins" (Fig. 5), in the same month, the *Times* magazine that is published weekly in the United States put on its cover: "Mexico's killer quake" (Fig. 4), the newscasts reported in hourly programs the situation that had been experienced since the beginning of the earthquake.

This earthquake had a great impact both economically and socially, since numerous "epidemics" of depression, collective psychosis, post-traumatic stress, and violently neurotic attitudes were reported, which required the intervention of more than 1000 trainers from the Coordination of Psychiatry and Mental Health of the Mexican Institute of Social Security, something unimaginable for those who did not experience it. The General Hospital immediately lost the availability of 1657 beds, of which 1300 were later rehabilitated in approximately 6 months; the outpatient service suspended its work for 50 days and the hospitalization service for 120 days. Not only that, areas such as teaching and research were also affected; of which to date have been recovered thanks to the commitment and responsibility that the teaching department showed by continuing with the specialty programs despite the loss of part of its staff, positioning itself among the best health institutions in Mexico with more of 6000 people, forming a multidisciplinary team that seeks quality and continuous improvement in care, incorporating and perfecting specialized medical care procedures. Despite all of the above, there is something that the "Eduardo Liceaga" General Hospital of Mexico lost and that it will be impossible to repair: the lives of all the staff, patients, and relatives who had a "home" within it.

During this period, Mr. Miguel de la Madrid was president of the Mexican Republic; the hospital was facing problems of lack of money. Days after the earthquake there was a rumor that the hospital would be closed, so on October 22, 1985 a march was held with more than 5,000 workers including patients to





**Figure 4.** TIME magazine cover September 1985. Personal collection Dr. Raúl Cicero Sabido.

the official residence of “Los Pinos”. President Miguel de la Madrid offered to restructure the hospital immediately. The day after the march the reconstruction began and by early 1986 work was being done regularly throughout the hospital. In mid-1986 the new director was appointed Dr. José Kuthy Porter who finished the reconstruction of the hospital, but did not achieve its reequipment<sup>6</sup>. But not only the hospital had losses of this magnitude; the total damage was estimated at 8 billion US dollars: 250,000 homeless, 900,000 victims and rescue work lasted for more than a month. The removal of the debris lasted until ten years after the quake<sup>7</sup>.

Thirty-seven years after this natural phenomenon, as a tribute to the deceased and with the aim of continuing with the civil protection protocols in this type of phenomenon, a collection of images was made, through which some will remember what happened and the new generations will know the magnitude and significance of the disaster.

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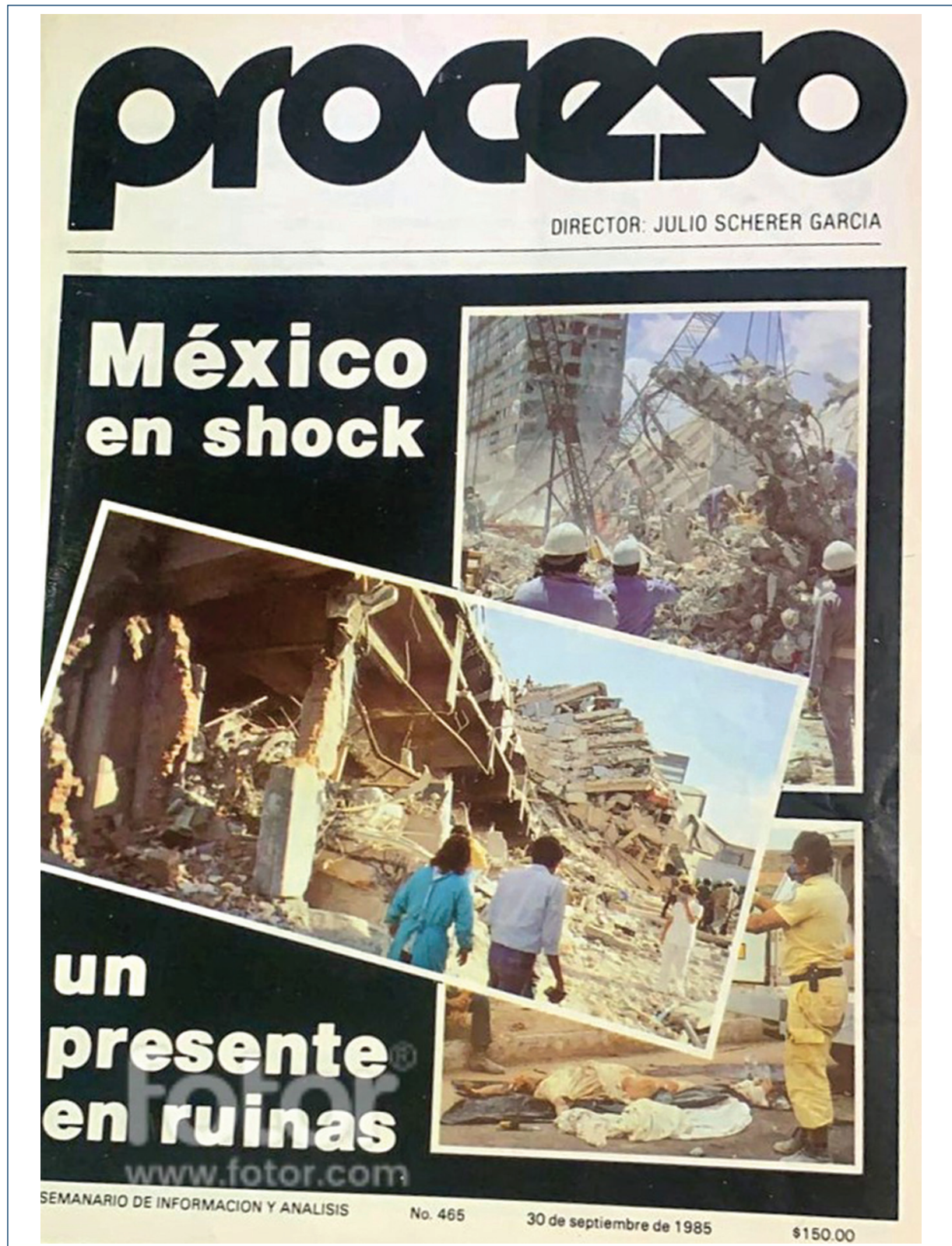


Figure 5. PROCESO magazine cover September 1985.

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## Conflicts of interest

The authors declare that they have no conflicts of interest.

## Ethical disclosures

**Protection of human and animal subjects.** The authors declare that no experiments were performed on humans or animals for this study.

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**Right to privacy and informed consent.** The authors have obtained the written informed consent of

the patients or subjects mentioned in the article. The corresponding author is in possession of this document.

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