Observational study on epidemiology and survival in road traffic – pedestrian collisions in the City of Madrid.

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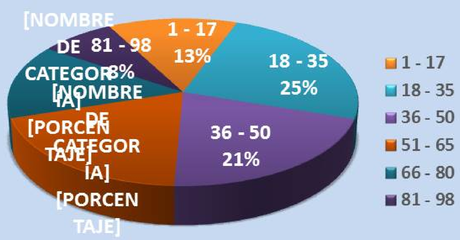
Background:
Every year about 11 000 road traffic–pedestrian collisions occur in Spain. Of these, more than 10 000 occur in urban areas, where travelling by foot is common, and incidence of pedestrians is high. This makes pedestrians the most vulnerable in respect of road accidents.

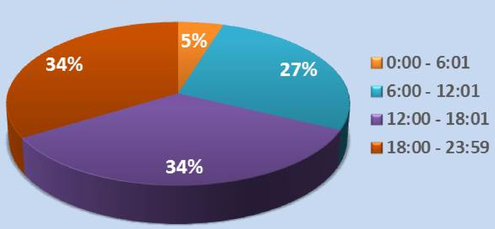
Patients & Methods:
Retrospective transversal descriptive design through review of SAMUR-Protección Civil road traffic- pedestrian collisions care reports in 2018 in the city of Madrid. Variables: age, gender, geographical and time placement, lesions, survival rate after 6- hour, 24- hour and 7- day time period through the analysis of hospital notice procedure and follow-up. Data processing: Excel 2010, SPSS 17.0

Results & discussion:
- The sample was 1598 road traffic- pedestrian collisions, of which 54.7% were women and 45.3% were men.
- The mean age was 44.9 years (SD 23.2) with a minimum range of 1 and a maximum of 98 years old.
- Higher incidence was during the months of January and November (10.4%), with a decrease during the month of August (3.9%).
- The highest incidence was on Tuesdays (17.9%), being Sundays of lowest incidence (7.6%).

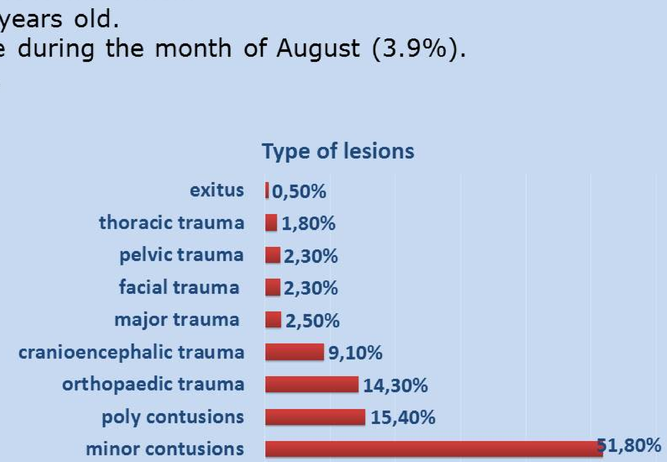
Age range



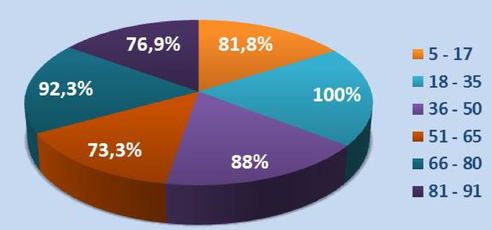
Time range



Type of lesions



Age range survival rate after 7 days



- 104 patients required hospital notice on grounds of severity, with a mean age of 46.28 (SD 23.67), being 59.6% male and survival rate after 6 hours (h) at 96.2%, after 24h 91.3% and after 7 days 87.5%.
- Male had an 85.5% survival rate and 90.5% for females after 7 days.

Conclusion & perspectives:
Based on these results, we can affirm that the common tipology of a run-over victim in urban environment is of a woman aged between 18 and 35 years old who suffered the collision during working days and presenting minor contusions.

The patients who required hospital notice due to severity were men of with the mean age of 46 years old and presenting no survival if their injuries would provoke them an out of hospital cardiac arrest (OHCA).

Future prevention and awareness campaigns are necessary in order to prevent this urban accidentability. This should be addressed both to drivers and pedestrians for a correct use of the roads.

Type of lesions	6 hours	24 hours	7 days
Orthopedic trauama	100%	100%	100%
Facial trauma	100%	100%	100%
Toracic trauma	100%	100%	100%
Pelvic trauma	100%	100%	100%
Abdominal trauma	100%	100%	66,7%
Craniencephalic trauma	100%	97,4%	94,7%
Major trauma	94,1%	85,3%	82,4%
Ohca	50%	25%	0%

Table 1:Type of lesions of hospital notice and the survival rate after 6 hours, 24 hours and 7 days.