

---

## Atherosclerosis and Inflammation

---

### 1.6 Brisighella Heart Study (BHS): Hypertension and Lipidic Parameters

S. D'Addato (1), A. Dormi (1), L. Laghi (1), E. Tartagni (1), F. Imola (1), M. Rosticci (1), C. Borghi (1)

(1)Università di Bologna, Bologna, Italy

**Aim.** To evaluate the existence of modifications in the lipidic profile in relation to blood pressure (BP) variations in a rural population studied for 4 years.

**Methods.** Brisighella Heart Study, promoted by Prof. Giancarlo Descovich in 1972, is an observational longitudinal study with a 4-year follow-up aimed at evaluating the spontaneous variations of major cardiovascular risk factors in a population living in Emilia - Romagna. We analyzed the data of 709 males and 729 females controlled in 1992 and 1996, divided by BP levels. In 1992 we only separated non-hypertensive ('92 NH) from hypertensive or in treatment subjects ('92 H), in 1996 we analyzed three groups of people: non-hypertensive ('96 NH), hypertensive ('96 H) and new diagnosed hypertensive subjects ('96 NDH).

**Results.** In males, total cholesterolaemia (TC) was higher in '96 H than in '92 NH ( $p=0.03$ ); we observed no significant differences between '96 NDH and '92 H and NH. As for women, '96 H had higher TC levels than '92 NH ( $p<0.001$ ) and '96 NDH ( $p=0.025$ ). Moreover, CT levels were higher in '96 NDH than in '92 NH ( $p<0.001$ ). A similar trend could be observed for triglycerides (TG). In males we documented only a significant difference between '96 H and '92 NH ( $p<0.001$ ); in females we found significant differences in each class ('96 H vs '96 NDH -  $p<0.001$ ; '96 H vs '96 NH -  $p<0.001$ ; '96 NDH vs '96 NH -  $p=0.034$ ). Relating to HDL cholesterol levels, no differences were found in all subgroups.

**Conclusions.** Our data suggest the existence, in females, of a possible correlation between BP levels and variations in the lipidic profile. This correlation seems to be less relevant in males.