In this study, our purpose was to investigate the possible effect of paternal obesity on intracytoplasmic sperm injection (ICSI) outcomes on the basis of clinical pregnancy outcome. Anthropometric measurements of 155 couples, referred to our infertility clinic and who underwent an ICSI cycle, have been evaluated. The study sample were divided into three groups with respect to paternal body mass index (BMI), as normal weight (BMI: 20-24.9), overweight (BMI: 25-29.9) and obese (BMI ≥ 30). Results of conventional semen analysis were also analysed. Clinical pregnancy data, including fertilisation rate, implantation rate, clinical pregnancy rate and live birth rate, were evaluated. Paternal obesity was a significant negative factor for sperm concentration and sperm motility (P = 0.03 and P = 0.01 respectively). A significant decrease of clinical pregnancy rate and live birth rate was associated with increased paternal BMI (P = 0.04 and P = 0.03 respectively). We have not determined a significant difference among groups in terms of fertilisation rate and implantation rate. This study demonstrates that increasing paternal BMI has a negative influence on ICSI success, including clinical pregnancy rate and live birth rate. There is a need for further studies to point the importance of lifestyle changes in order to overcome the negative influence of paternal obesity on couple's fertility.