

# The Prevalence of Covid-19 Infection and Vaccination Rate of Patients with Inflammatory Bowel Disease

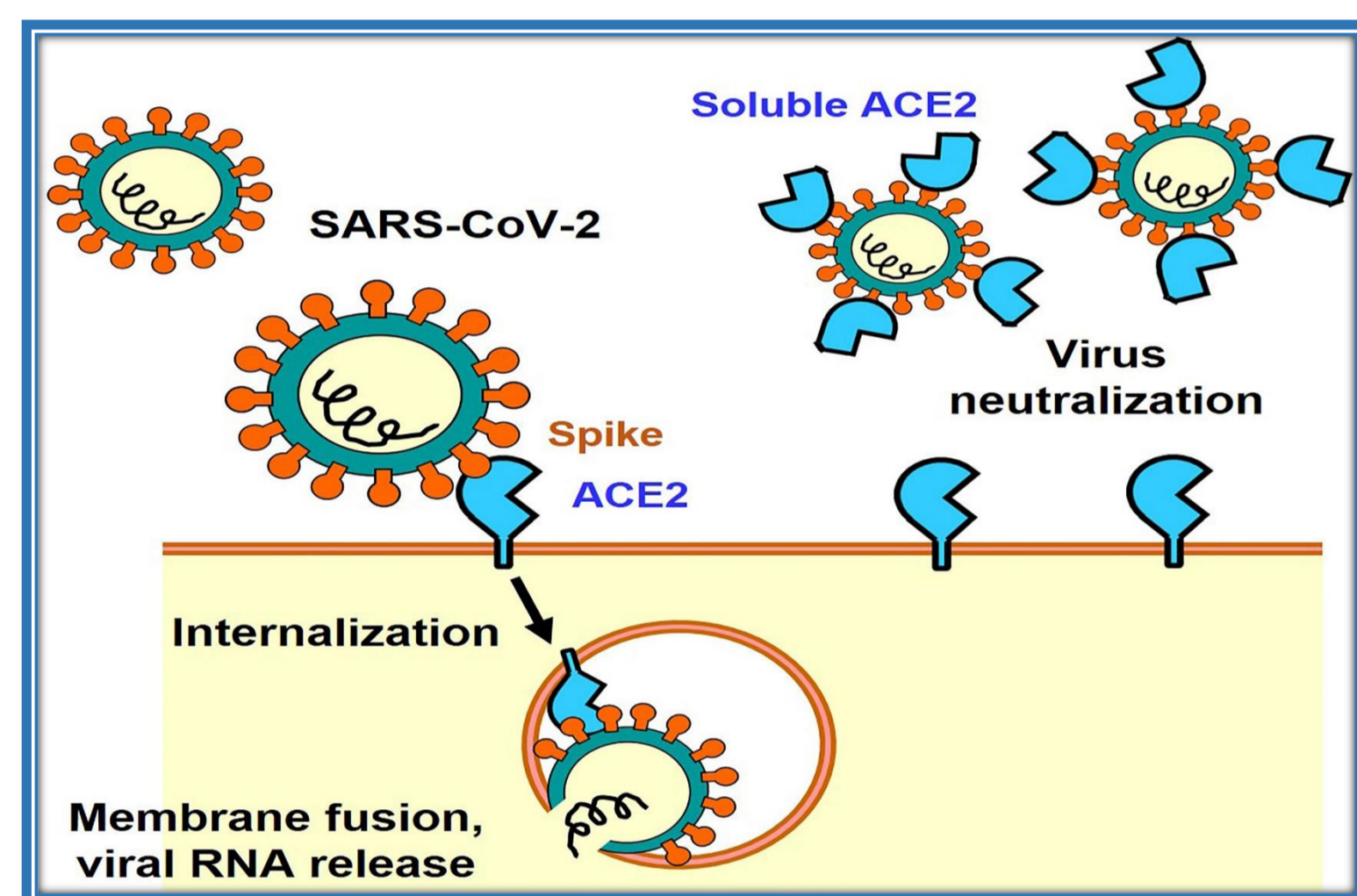
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**Introduction:** COVID-19 virus may cause gastrointestinal system symptoms similar to Inflammatory Bowel Disease (IBD) which is a chronic, immune system related disease. The usage of immunosuppressive medication may reduce the risk of mortality by preventing the cytokine storm. On the other hand they increase the number of Angiotensin converting enzyme-2 Receptor and simplify the replication of the SARS-coV-2 virus in the body. Therefore the overall impact of IBD in COVID-19 infection is unclear.

**Method:** In this study, 255 IBD patients were chosen randomly from Bezmialem University' database. The PCR results, their IBD medications and COVID vaccination doses and types were evaluated retrospectively.



Graph 1: the mechanism of Coronavirus binding to ACE-2 receptors

**Results:** Our data showed that of the 255 patients; 53.7% (137 pts) have never been infected with coronavirus. 94.1% (111 pts) who had COVID-19 infection, experienced mild symptoms. Only 1 (0.8%) patient had been admitted to intensive care unit who had been treated with Mesalazine, Azathioprine and biologic agent.

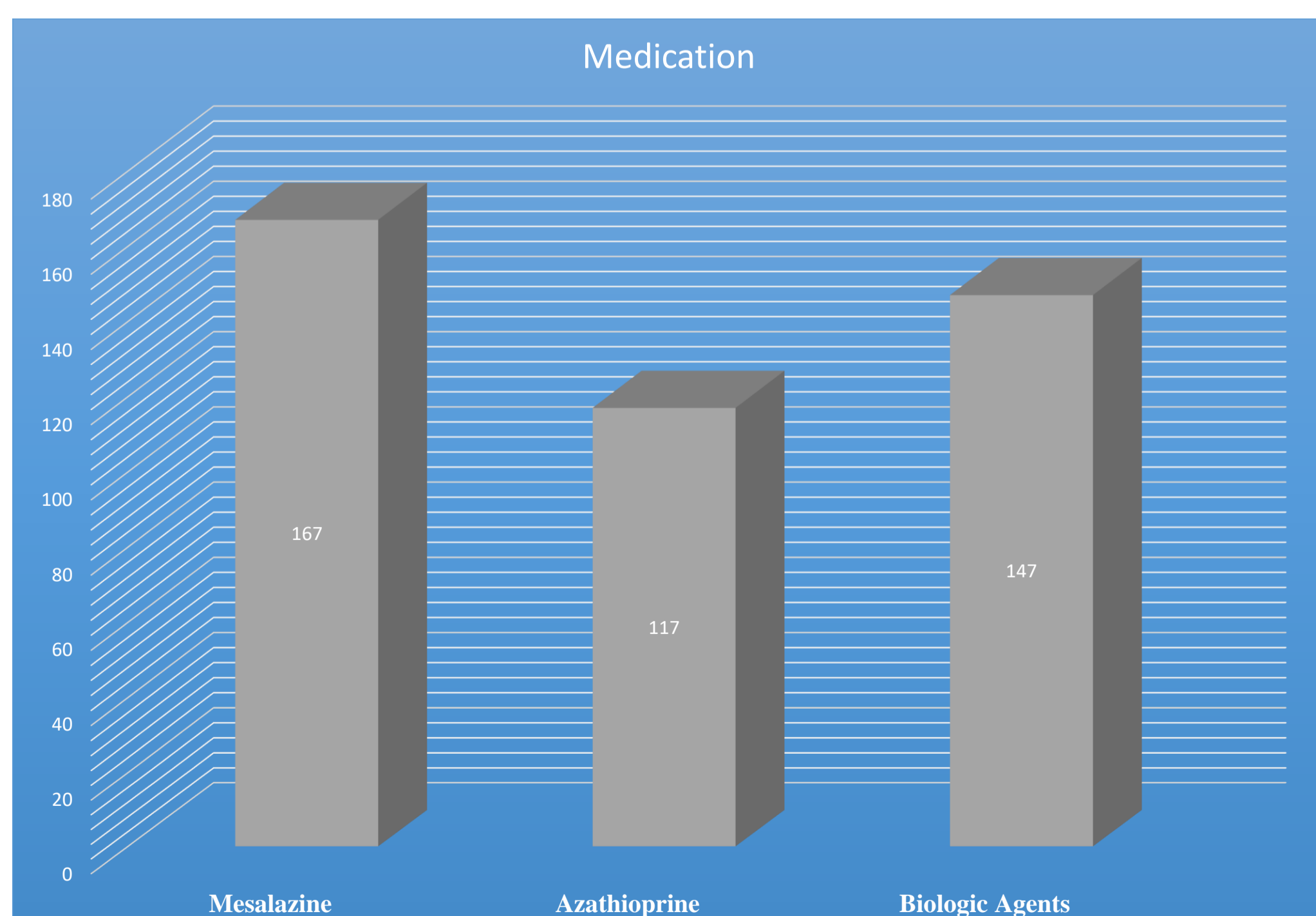


Table 1: IBD Medications

Of the 255 patients 76.9%(196 pts) were vaccinated with Biontech; 45.9% (90 pts) had infection at least one time and 95.6% (86 pts) experienced mild symptoms. Of the 255 patients, 46.8% (80 pts) were vaccinated with Sinovac; 31.6% (37 pts) had been diagnosed with infection and 95.0% (35) described mild symptoms. Nobody with vaccine has been admitted to intensive care unit. The patients with mild symptoms were using the following medications in different percentages; 58.6% (65 pts) biologic agents, 44.1% (49 pts) Azathioprine and 74.8% (83 pts) Mesalazine.

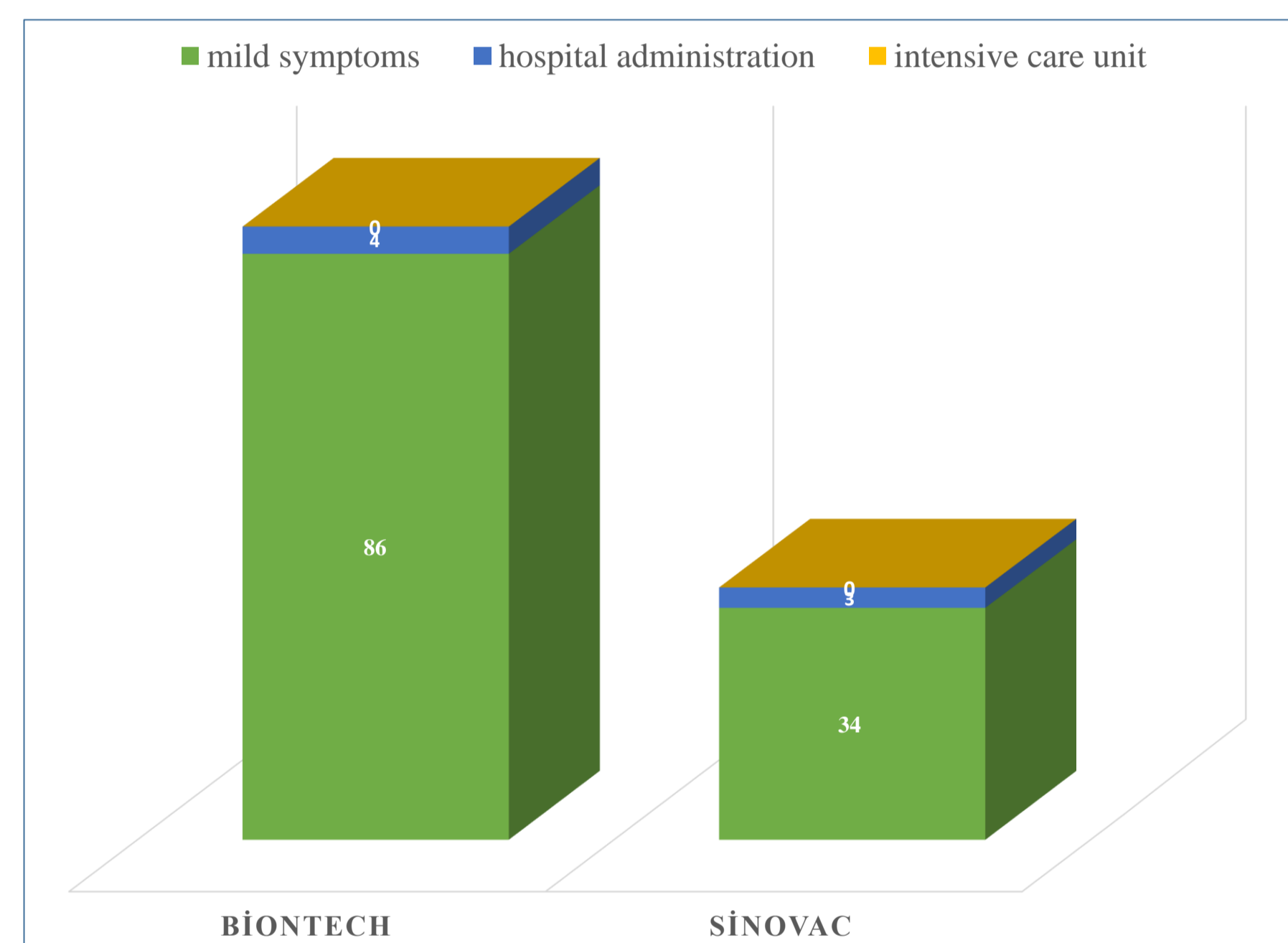


Table2: Course of Covid-19 Infection in IBD patients depending on the vaccine

**Conclusion:** According to these results, the majority of IBD patients overcame the COVID infection with mild symptoms. Neither the type of vaccine nor the different IBD medications have a significant role in the course of infection.

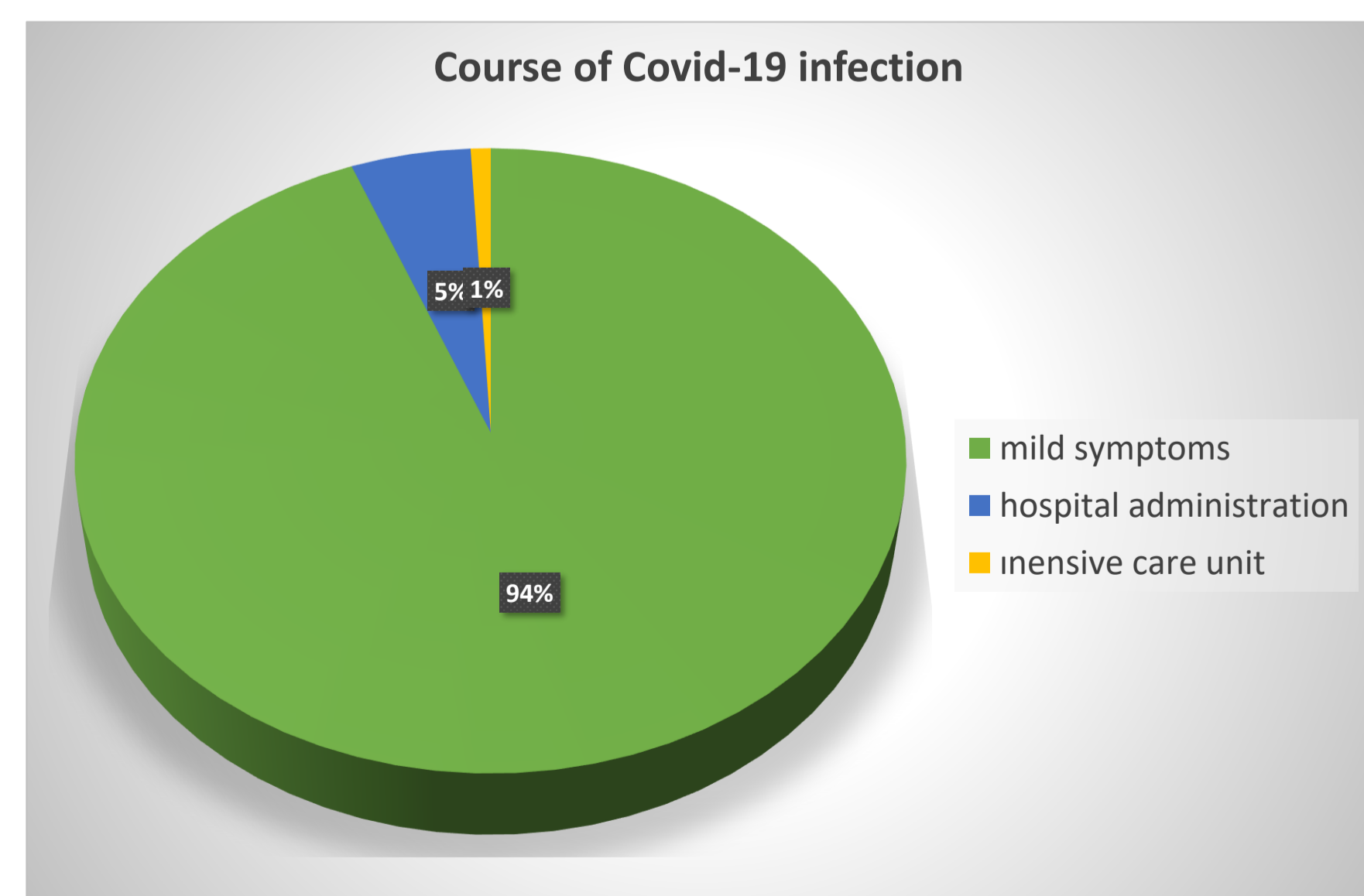


Table 3: it shows the course of Covid-19 infection in IBD patients