

REVIEW

Holly Sacrament: the medicine of spiritual immortality or a vehicle for contamination?

Dimitrios Anyfantakis

Primary Care Centre of Kissamos, Chania, Crete, Greece

ABSTRACT

The Holy Communion is the oldest Christian practice, through which a gathered group of people partake bread and wine with a shared spoon. The pandemic of COVID-19 produced unexpected social instability and chaos. In Greece, a recent bishop's death from COVID-19 re-awaked the issue of infection transmission by using a common chalice and spoon. This review evaluates the available medical literature on this topic from the beginning of the pandemic until today.

Key words: COVID-19, Eastern Orthodoxy, infections

Corresponding author:

Dimitrios Anyfantakis
Primary Care Centre of Kissamos
K. Hliaki 3, 73134 Chania, Crete
Phone: +306937473215;
+30 282 234 0100;
E-mail: danyfantakis@yahoo.gr
ORCID ID: 0000-0002-8932-9093

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INTRODUCTION

The ongoing pandemic triggered a severe economic and social crisis worldwide. In Greece a three-week nationwide lockdown started on 7 November in order to halt the transmission of the infection. Churches closed their doors and were due to reopen before the Christmas period. Holy Communion is a core ritual of both Eastern Orthodox and Roman Catholic Christians. During the Divine Liturgy the priest dips a spoon into a chalice of wine and places it into the mouth of a parishioner (1).

Although no episode of disease attributable to the shared communion cup has ever been documented (2), the death of Metropolitan Bishop Ioannis of Lagadas due to COVID-19 revived the debate over the safety of receiving communion before the Christmas season.

This review evaluates available medical literature on this topic from the beginning of the pandemic until today.

HISTORICAL ASPECTS OF THE HOLY COMMUNION

Before the eleventh century, Christians used to receive Holy Communion in an entirely different way than the present practice in the Eastern Orthodox Church (3). The worshipers extended their hands and the priest placed a portion of the holy bread (3). After consuming the bread, the communicants were offered wine by a common cup (3).

By the twelfth century lack of priests made the administration of the bread and wine separately, hard procedure (3). For this reason, the Church adopted the use of a shared spoon (3). The sacred bread and wine were mixed together in the Communion cup and placed carefully into the mouths of the communicants (3). Historically the tradition of spoon emerged during the 7th century in Byzantium (3). Today, more than two billion Christians worldwide consume in this way consecrated bread and wine every week or more frequently (3). Hierarchs, priests and deacons do not receive Holy Communion from a spoon (3).

The sacramental bread and wine offered during the mystery of Eucharist are the body and the blood of Jesus Christ. The material objects (the spoon and chalice) become part of the mystery as they come into contact with Christ's Body and Blood (4). Their nature is not changed, but, rather, they are transformed to a different mode

of existence and they are sanctified (4). The miracle of Jesus healing the bleeding woman when she touched the edge of his clothes described in the Gospels, illustrates this metaphor (Matthew 9:20–22, Mark 5:25–34, Luke 8:43–48 (5)).

HOLLY COMMUNION AND THE RISK OF INFECTION

Empirical information suggests that Christians who receive Holy Communion do not get ill more frequently compared to those who do not participate in this religious ritual (1). The first literature report on this subject appeared in 1894 (6). Since then, the only scientific data derive from a small number of experimental studies (1,7). In 1988, Kingston reported that the only available experimental studies until then tested the numbers of the bacteria from the rim of the communion cup (8). He also stated that a pathogen entering by mouth can cause disease, under specific circumstances (8). Principal parameters that may favour infection transmission are: concentration and survival time of a micro-organism in the chalice, in the cup, in the communion wine, and the saliva (8). The majority of the investigations studied only the eventuality of bacterial and not viral contamination (8). Remarkably, the concentration of bacterial pathogens isolated from the rim of the cup was found to be considerably low (8).

In alignment with this, research efforts by Hobbs et al. found that the number of organisms deposited on the rim of the chalice varied from person to person but was relatively small (9). No micro-organisms were found in wine (9).

A noteworthy experimental study was conducted by Burrows and Hemmens (10). They contaminated the rim of the chalice as heavily as possible with saliva. The authors stated that transfer of the pathogen from a person to another did not occur (10). The bactericidal effect of wine on most pathogens was also remarked (8,9,11). Interestingly, *Serratia marcescens* and *Streptococcus pyogenes* died within minutes in wine, and this effect was amplified by the silver material of the cup (9,11).

A survey of 10-week duration by Loving and Wolf among 681 volunteers, compared illness rates among those who received Holy Communion, those who simply reported church attendance, and those who stayed at home. No significant difference was found between the three population groups of the survey (12). In the same direction, Manangan et al. reported that the risk of tran-

mission of a communicable disease through the Holy Communion is small (13). Until today, there is a lack of evidence regarding the transmissibility of a viral infection through the chalice and the communion cup. Viral infections and SARS-CoV-2 are transmitted mainly through inhalation of respiratory droplets rather than oral contact (14). *Infected* people *spread viral* particles whenever they talk and breathe (14). Therefore, this investigation would be complex and would raise unanswered issues (15). The practice of intinction, which consists of dipping the wafer of bread into the chalice together with the consecrated wine, was reported to be a promising strategy in lowering the risk of infection (15,16).

In a recent article, Spantideas et al. evaluated the risk of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) transmission by participating in the mystery of Holy Communion (7). The authors, seeking an answer on this topic, underlined the lack of the existing evidence and limited knowledge about the bacterial or viral load in the communicants' saliva, a crucial parameter for the transmission of viruses such as the common cold, influenza and SARS-CoV-2(7). They emphasized the immune status of the worshipers, stating that immune-compromised patients should request alternate means of partaking in the Holy Communion (7).

The small risk of transmission of any pathogen by partaking in the Holy Communion may be sustained by the argument that deacons after the dismissal and distribution of antidoron, consume the remaining communion from the rim of the chalice at the end of the liturgy (1).

They should be the first infected persons from viral lethal diseases in the past, such as tuberculosis and Hansen's disease. Severe infections among priests have never been reported (1). An interesting case is that of the Saint Anthimos of Chios, who regularly communed patients with leper and tuberculosis (17). Despite the suggestions not to receive Holy Gifts from the same cup with all these sick people, he was never infected (17).

HOLY SYNOD AND EXPERTS OPINION

The Greek Orthodox Church insists that it is impossible for any disease – including Covid-19 – to be transmitted through Communion (18). Metropolitan Piraeus Serafim, argued that during the last 10 months (from February 2020 to December 2020), approximately 2,500,000 faithful people received

Holy Communion in Greece (18). If this number is compared to 130.000 recorded infected cases during this interval, there is a large discrepancy, showing a miracle of God in front of the Christmas period (18). However, it cannot be excluded that religious gathering of the population, without preserving the safety measures (wearing a mask and keeping distance) can be a vehicle of the transmission of COVID-19 infection (19).

Greek health experts avoided commenting on church practices (20). Athena Linou, Professor of Epidemiology at the Medical School of EKPA and President of the Institute of Preventive, Environmental and Occupational Medicine Prolepsis, reported that it has never been scientifically confirmed that the saliva of those who partake in the Holy Communion is a vehicle for contamination (20). She also stated that spiritual matters of the Orthodox faith cannot be explained with logic (20).

In conclusion, the transmission of any contagious disease by sharing utensils and contact with the chalice has never been scientifically proved. Adjustments on the way that the mystery of the Holy Communion is traditionally served to faithful Christians, with measures such as disinfection of the spoon and the use of individual cups for wine, are interventions of unknown benefit. Any suggestion that the Holy Communion poses a danger for viral or bacterial respiratory infection is not evidence based and derives from the lack of faith. For the human mind, it is not easy to understand how this illogical transformation of the bread and wine to the body and blood of Jesus Christ occurs.

I believe Holy Sacrament is a mystery that exceeds the natural laws and cannot be fully explained with the human logic. It could be assumed that the worshipers who do not believe that the Son of God is truly present in the Holy Communion under the appearance of bread and wine are better to stay apart and not ask for it. Those who believe in "the medicine of immortality" the "life-giving body and blood of Jesus Christ" they have the right to participate in the Holy Eucharist without fearing of the coronavirus.

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Conflict of interest: None to declare.

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