



Violence in the Novel "Atas Singgasana" by Abidah El Khalieqy

Rida Amalia; Sarwiji Suwandi; Atikah Anindyarini

Indonesian Language Education Master Program, Sebelas Maret University of Surakarta, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v8i1.2269>

Abstract

This study aimed to 1) describe forms of physical violence and 2) sexual violence contained in the novel *Atas Singgasana*. The most common violence found was sexual violence, namely 20 quotes, while physical violence was 4 quotes. The source of data in this research was the novel *Atas Singgasana* by Abidah El Khalieqy. The results of the analysis shown there was violence committed by male characters to female figures, both physical and sexual violence. Sexual violence in the form of actions such as speaking harshly, cursing, groping, kissing, hugging, and doing other things the victim did not want. Physical violence took the form of beatings, namely kicking, pulling and slapping.

Keywords: *Gender injustice; Novel Atas Singgasana; Violence*

Introduction

Gender injustice occurs because of the existence of social structures and systems in society that result in a gender (male and female) being a victim, but women who often experience injustice. Gender injustice occurs because of the embedded beliefs and justifications that have existed in society throughout the history of human civilization.

Ridwan (2007:150) states that gender injustice in the form of domestic violence originates because of the inequality of roles and powers between husband and wife. Violence is born partly because of gender roles and functions, socially constructed, which results in one party becoming subordinate to the other.

Asma, B (2007:54) says that there is often a misunderstanding of the concept of gender because it is often associated with sex, even though the two are different. The essence of gender injustice that occurs in society is the mixing of the concepts of gender and sex which are in fact distinctly different. Susanto, N H (2015:121) states that gender is a socio-cultural construction of society, while sex is said to be a difference between women and men as seen from the aspect of gender and biological provisions that cannot be changed. Molo, Marcellus (1993:87) said that the concept of sex refers to women and men, which are distinguished from their reproductive organs. The concept of gender is interrogated as a problematization of the quality and character and roles of men and women.

Klugman (2017:1) the phenomenon of gender-based violence is widespread throughout the world and is experienced by one in three women in their lifetime. Harnoko (2010:187) in his research, he said that 95% of the violence victims that occurred in the community were women. Gerungan (1991:180) a person's interactions and experiences in the family also determine behavior in social interactions outside the family. Interaction patterns tend to be unfair, gender can be seen in the power relations and inequality of husband-wife roles because there are more dominant parties who hegemony other parties.

Fakih (2013:17) argues that violence is an attack on someone's physical or mental, psychological. Types of gender-based violence are categorized into several parts, namely: rape, beatings in a family (domestic violence) including child abuse, genital torture, prostitution, pornography, forced sterilization in the family, hidden violence, and what is most often found in society is sexual violence. Crowel (1996:7) the term violence against women has been used to describe a variety of acts, including murder, rape, assault, physical or emotional assault, harassment, beatings, stalking, prostitution, genital mutilation, sexual harassment, and pornography.

Violence has become a global reality that occurs all over the world. Many women experience violence, both physical violence and sexual violence. Women experience more violence because they are considered weak, obedient, must be protected and others. Violence also includes indications of abuse of power, injustice and dominance of men against women. As a result, there are violations of law, integrity and psychological problems of people who are victims of violence.

Sari, Nurmalina (2017:45) the term acts of violence according to article 1 of the Declaration on the Elimination of Violence against Women includes acts of gender-based violence, physically, mentally, psychologically, and emotionally which make women suffer. The forms of violence can take the form of threats, harassment, violations of both women's rights and freedoms, and intimidation.

The presence of women in a literary work is part of the author's reflection in reflecting the real life that occurs in society. Through his work, the author tried to invite readers to be critical in responding the problems in society, especially those concerning about women. The problems occurred to women are humanitarian problems related to their rights. Women often receive inappropriate, arbitrary, violence either in the form of physical violence or psychological violence. Prasetyo, Yudi et al (2017:153) said that the emergence of violence against female characters in a literary work occurs because people do not appreciate their existence as human.

Literary works will be useful for readers if they reveal human problems and behaviour. Behaviour is related to human behaviour, one of which is violence, whether physical violence or sexual violence. Violent reflections often occur in people's lives, as if they have been embedded in a person in order to achieve life goals and are increasing every day. So, the writer discussed the violence issue about women in the novel *Atas Singgasana*.

Abidah El Khalieqy's novel *Atas Singgasana* was a novel that contained a lot of violence. Violence occurred on Mila's family. He and his mother were tortured by their own biological father for various reasons that did not make sense. Until adulthood, Kamila still experienced both physical and sexual violence from her friends. Abidah wanted to speak out of the work she wrote, about the position of husband and wife, gender injustice in the family (violence, domestic violence) and others (Margono, 2015:7).

Method

The form of this research was qualitative, while the method used descriptive. The descriptive research method is a problem solving which is carried out by investigating, describing and portraying the

subject and research object based on visible facts (Siswanto, 2010:56). The object used in this study was flexible. Data of this research were words which contained violence and the source of the data was Abidah El Khalieqy's novel *Atas Singgasana*. Miles, BM & Huberman's (1992:17-20) model analysis technique took steps to collect and classify data, reduce data to summarize and select data, compile data, then draw conclusions.

Results and Discussion

Violence against women in Abidah El Khalieqy's novel "*Atas Singgasana*" were physical and sexual violence.

a. Physical abuse

Physical violence is violence that is directly related to the body, means that the victim feels physical suffering as a result of the perpetrator's torture. Physical violence in the novel "*Atas Singgasana*" was contained in the quote:

"Ibu selalu mengeluhkan kepalanya pusing saat ayah menampar dan menjambaknya" (Khalieqy, 2005, Hlm 9).

"Mother always complains her head dizzy when my father slaps her and grabs her" (Khalieqy, 2005, p. 9).

Kamila's family constantly got physical violence from her father. Her father constantly grabbed, kicked, even hit his mother's head against the wall. When their children watched, the father reasoned that he had knocked his head against the wall to cure the headache that his wife had suffered.

Sangeeta's (2018:15) states that violence is one of the tragic problems in society. Women become silent and are almost never acknowledged when violence is committed against them. Women are seen as perpetrators, spectators and victims of violence. This is the same as what Kamila and her family felt, they were made victims of violence and impeachment for their father. Abdurrachman, Hamidah (2010:476) in his research say that violence against women shows an increase in the number of cases. The reason is that domestic violence is unique because this crime is committed in intimate personal relationships and within the scope of the domestic.

"Sani merebut genggamannya ayah dan melepaskannya dari bahaya sebelum aku terbanting ke tanah" (Khalieqy, 2005, Hlm 15).

"Ia menariknya kuat, menampar pipiku, menempeleng wajahku, dan menyeretku ke arah pintu" (Khalieqy, 2005, Hlm 15).

"Sani grabbed my father's grip and released me from danger before I slammed to the ground" (Khalieqy, 2005, p. 15).

"He pulled hard, slapped my cheeks, slapped my face, and dragged me toward the door" (Khalieqy, 2005, p. 15).

Kamal's harsh treatment was felt not only by his wife, but also by his children. When Kamal lost his gamble and wanted to sell Kamila to his friend, Kamila was pulled, slapped, and dragged towards the door. Fortunately, at that time, her brother Sani, immediately helped Kamila when she wanted to be slammed to the ground.

"Ibuku ditendangnya hingga kepalanya terbentur dinding pada malam pertama pernikahan mereka" (Khalieqy, 2005, Hlm 55).

"My mother kicked her head against the wall in the first of their marriage night." (Khalieqy, 2005, p. 55).

Kamal was a father who was abusive, emotionless, and irresponsible. Kamal married his wife out of an inherited grudge. This was the beginning of Kamal's betrayal, which had broken his promise in front of the Muslim leader. During the first night of their marriage, his wife was already physically abused by Kamal. Hindun was kicked until his head hit the wall. Hindun often got physical violence, but she never rebelled, avoided, reported to the authorities or the domestic violence that befell her and her children.

Budiastuti,SR (2019:472)Budiastuti, SR says that in their research victims of domestic violence have reasons that make them reluctant to take legal action. The reason is because women consider this to be commonplace in the household, even as a process of education carried out by husbands for their wives, or parents towards their children. In addition, the reasons for women are reluctant to report because they feel weak and insecure, do not receive support from the surrounding environment, and environmental pressure to survive the violence they experience.

Kushidayati in Fadli, A(2017:177) continues to live at home even though a myriad of conflicts is typography of household relations between husband and wife. This kind of thinking is driven by a wrong paradigm because they fail to understand the functions and roles of husband and wife. Wives are required to take more risks in the failure of household relationships.

Department of Foreign Affairs and Trade (2018:1) states that violence against women is any gender-based action that results in physical, mental, sexual suffering including threats of action, coercion or arbitrary deprivation of liberty, whether that occurs in public or private life. According to Asnawi, H S (2011:199) domestic violence can occur in all levels of society, from the rich to the poor and the uneducated.

b. Sexual Violence

Sexual violence is an act that invites or urges the victim, such as groping, kissing, hugging, and other actions that the victim does not want. In addition, sexual violence can also say harsh words and appropriate actions, dirty talk, actions that lead to the gender aspect, force sexual intercourse without consent, engage in sexual activity that is not liked by a partner, touch body parts without consent, and others. Sexual violence in the novel "*Atas Singgasana*" appeared in the quote:

"Tak ada aungan harimau yang menunjuk muka ibuku sambil berteriak dan memaki "dasar otak kerbau" (Khalieqy, 2005, Hlm 1).

"Apa ibumu mampus sampai kau lari seperti di kejar setan,hah?" (Khalieqy, 2005, Hlm 12).

"Sudah kau bagi dengan laki simpananmu perempuan sial?" (Khalieqy, 2005, Hlm 20).

"There is no tiger roar that points at my mother's face while screaming and cursing you "buffalo brain" (Khalieqy, 2005, p. 1).

"Is your mother dead until you run away like being chased by a demon, huh?" (Khalieqy, 2005, p. 12).

"Have you shared with your mistress, an unlucky woman?" (Khalieqy, 2005, p. 20).

Sexual violence was acquired by Hindun. Kamal was constantly scolding her, saying dirty words that hurt her. This occurred for many reasons; one of them was for the reason that Hindun did not hand over the trading proceeds to Kamal. Kamal was a family head that did not work, relied on his wife, and even seized his wife's sales to have fun, gamble and play with other women.

Wandi, Gusti (2015:243) states that the patriarchal system is a scourge in gender studies because it is considered as a form of perpetuating men's power over women. Patriarchy means "patriarch", namely the father's power, which symbolizes the labelling of a family that is controlled by men. In addition, patriarchy is defined as the power of men, a husband who controls his wife, a system that allows women to be controlled in various ways, including violence experienced by women. Stoeber (2014:517) in his research says that one in three women experienced physical or sexual violence by their partner and resulted in physical and psychological consequences, some of which can not be treated.

"molek juga telurmu. Ini yang nomor berapa dan berapa besar taruhanmu" (Khalieqy, 2005, Hlm 13).

"Apa yang kau lihat anak manis? Dia berusaha meraih pinggangku" (Khalieqy, 2005, Hlm 14).

"Ayah kalah judi dan mempertaruhkan diriku seharga seratus ribu kepada laki-laki Gorgon Medusa" (Khalieqy, 2005, Hlm 15)

"Your girl is also cute. This is what number and how much is your stake" (Khalieqy, 2005, p. 13).

"What do you see cute girl? He tried to reach my waist" (Khalieqy, 2005, p. 14).

"Father lost his gamble and risked myself worth one hundred thousand to the Gorgon Medusa man" (Khalieqy, 2005, p. 15)

Kamila felt sexual violence because her father lost to gambling. Kamal wanted to sell his daughter for one hundred thousand. Kamila received sexual violence in the form of inappropriate treatment, tried to touch her waist, and got vulgar words from the man she called the Gorgon Medusa, even though at that time, Kamila was still a little girl who didn't know anything.

Kusmanto, T (2017:134) says that victims of violence, both physical and sexual, will be given more attention to many aspects. They are not only hurt physically, but also psychologically. If the victim is handled properly, is socialized and is well rehabilitated, it is hoped that the victim can recover and avoid trauma. Muttaqin et al (2016:185) the impact of violence on children who see and even become victims of violence, they tend to avoid associating with men because of the traumatic form they feel. Child abuse causes persistent psychological problems.

The United States is a human rights country that has the highest level of sexual violence. Andrew in Harnoko, BR(2010:181) mentions that there are 114 rape cases per 100 American populations, while in Indonesia, The National Commission on Violence against Woman states that violence against women has increased from year to year. In 2004, there were 5,934 cases of violence against women. The number that increased by 3,169 cases from 2001 and from 5,934 cases of violence against women as many as 2,703 were domestic violence.

Unlike the violence case befell Kamila; it actually made her a tough woman. This occurred when Kamila wanted to be sold to a village assistant, her adoptive father came to pay ransom and took care of her with great love. Kamila had managed to grow into a woman who was strong, intelligent and had empathy for other women who experienced violence like her.

"Lalu kusadari, tubuhku telah berada dipelukannya" (Khalieqy, 2005, Hlm 65).

"Hampir saja kau memperkosaku Haidar" (Khalieqy, 2005, Hlm 67).

"Saat matanya nanar dan wajahnya begitu berigas melepas tirai tubuhku" (Khalieqy, 2005, Hlm 76).

"Haidar di sampingnya, yang diam-diam mencolek pinggangku dari belakang" (Khalieqy, 2005, Hlm 86)

"Dadamu menekan kuat payudaraku lalu aku sesak napas" (Khalieqy, 2005, Hlm 168).

"Haidar berusaha melucuti kancing bajuku" (Khalieqy, 2005, Hlm 180).

"Then I realized, my body was in his arms" (Khalieqy, 2005, p. 65).

"You almost raped me, Haidar." (Khalieqy, 2005, p. 67).

"When his eyes were dark and his face was so hot, he took off the curtains of my body." (Khalieqy, 2005, p. 76).

"Haidar beside her, who secretly poked my waist from behind" (Khalieqy, 2005, p. 86)

"Your chest pressed firmly against my breasts and I was short of breath" (Khalieqy, 2005, p. 168).

"Haidar tried to unbutton my shirt." (Khalieqy, 2005, p. 180).

Since childhood, Kamila had experienced sexual violence, even as an adult, Mila still got the same thing from the man she loved the most, Haidar. Several quotes support the sexual violence that Haidar perpetrated against Mila. Haidar often hugged her, pressed her chest against her breasts, and tried to unbutton Kamila's shirt without consent. Haidar's behaviours made Kamila afraid and uncomfortable.

Rochaety, Nur (2014:13) categories on acts of violence based on the life cycle, one of them is during adolescence. A woman is prone to experience violence during dating, date rape, forced sex for various reasons, sexual harassment at work, rape, prostitution and woman trafficking.

"Kubuka kado dan kulihat isinya, celana dalam perempuan" (Khalieqy, 2005, Hlm 111).

"Kamila yang sedang dipertaruhkan harga dirinya oleh sebungkus kado berisi celana dalam perempuan" (Khalieqy, 2005 Hlm 113).

"Tanpa permisi atau sekedar basa basi, bos melepas semua pakaiannya kecuali celana dalam, kemudian tengkurap di atas kasur" (Khalieqy, 2005, Hlm 130).

"Dengan hati-hati, tanpa menimbulkan suara gesekan apapun, ia merayap di samping tubuhku, mencari letak daerah sensitive" (Khalieqy, 2005, Hlm 139).

"I opened the gift and saw its contents, women's underwear" (Khalieqy, 2005, p. 111).

"Kamila is bet with a gift package which contains women's underwear." (Khalieqy, 2005 p. 113).

"Without permission or just pleasantries, the boss took off all his clothes except his underwear, then he lay on the bed" (Khalieqy, 2005, p. 130).

"He crawled beside my body looking for sensitive areas carefully without making any friction sound." (Khalieqy, 2005, p. 139).

Kamila was known as a woman who was beautiful and sociable; this often made men misunderstand. She often got inappropriate treatment and sexual violence from his co-workers. Starting from getting a gift filled with underwear, even Kamila's boss secretly touched her sensitive area and dared to invite her to sleep together.

Fatmariza, Armelyta (2018:252) According to the National Commission on Violence against Woman, violence is divided into 2, namely violence in the personal and violence in the public. Examples of violence in the public include obscenity, sexual harassment and rape, while violence in the personal includes violence against wives, violence during dating, and violence against domestic workers.

"Perempuan itu akan dimaki-maki dengan kata-kata kotor yang dipungut dari lorong-lorong terkumuh" (Khalieqy, 2005, Hlm 101)

"Sani, perempuan malang yang menjadi mangsa kebiadaban Kamal, bahan ejekan Sani, kakak lelakiku, menjadi keranjang sampah dan segala macam kata terror dari Dedi, adik lelakiku" (Khalieqy, 2005, Hlm 105).

"The woman will be cursed at with dirty words that are collected from the dirty halls" (Khalieqy, 2005, p. 101)

"Sani, the poor woman who became target to Kamal's savagery, the mockery of my older brother Sani, became a trash basket and all kinds of words of terror from my little brother, Dedi" (Khalieqy, 2005, p. 105).

Sani was a young woman who was married to Kamal after his first wife died. Kamal was still a bad man who cursed at his wife. Apart from Kamal, Sani was also sexually abused by Kamal's sons. She was always subjected to bad treatment, harsh words, curses, ridicule; even the child in her womb was threatened with being killed by Kamal's son. It was only a joke, but because of a joke from Kamal's children, Sani became depressed and wanted to abort the child in her womb.

Farid, M(2019:177) In the National Commission on Violence against Woman, case of violence is increasingly prevalent from year to year which is divided into 3 areas, namely personal (family), community and state relations. According to the National Commission on Violence against Woman's data, 99% of victims of domestic violence are violent, while in the context of gender women still perceive as a weak party. This makes women's position at a disadvantage and they cannot defend themselves because they are not given free space.

"Berjajar lukisan erotis perempuan telanjang tergelar dimataku yang sepanjang itu Jamal menyertaiku, berdiri tepat dibelakangku" (Khalieqy, 2005, Hlm 136).

"Jamal mencium pipiku dari belakang dan berusaha merangkul tubuhku" (Khalieqy, 2005, Hlm 159).

"There were erotic paintings of naked women lying in my eyes, along which Jamal was with me, standing right behind me" (Khalieqy, 2005, p. 136).

"Jamal kissed my cheek from behind and tried to embrace my body." (Khalieqy, 2005, p. 159).

Many men approached Kamila. Jamal was one of the most polite men. She invited Kamila to discuss, eat and visit her art gallery, but Kamila's sympathy for Jamal didn't last long. Jamal had three loyal women who had sacrificed thousands of hours in their lives waiting for the boy they love, Jamal. Jamal already had three wives. Jamal thought Mila were a slut girl who could be asked out on a date anytime.

Mujaharah, Kurnia (2016:130) various forms of violence against women are including physical, psychological, economic violence to sexual violence. Violence against women (wives) as stated in the United Nation declaration, namely a Declaration on the Elimination of Violence against Women. The United Nations Declaration states that violence against women is any act based on gender differences that causes suffering and misery for women, physically, psychologically, threats of violence, coercion, deprivation of liberty, whether occurring in the public or in the private (household).

Conclusion

Based on the findings on this study, several conclusions could be described, namely the form of violence experienced by female characters in the novel "*Atas Singgasana*" in the form of physical and sexual violence. The most dominant violence against women characters in the novel was sexual violence, especially felt by the female main character named Kamila and her mother. Violence occurred because of men's arbitrariness, perceiving women as weak creatures, who fooled around, so that violence was prosecuted both physically and sexually both in the public and private area.

References

- Abdurrachman, Hamidah. 2010. Perlindungan Hukum Terhadap Korban Kekerasan dalam Rumah Tangga dalam Putusan Pengadilan Negeri Sebagai Implementasi Hak-Hak Korban. *Jurnal Hukum*, 17(3), 476.
- Asma, B. 2007. Cara Quran Membebaskan Perempuan. Yogyakarta: Serambi Ilmu Semesta.
- Asnawi, Habib S. 2011. Ham dalam Ruang Domestik: Studi Terhadap UU No 23 tahun 2004 Tentang PDKRT. *Al-Mawarid*, 11 (2), 199.
- Budiatuti, S R. 2019. *Peran Serta Masyarakat dalam Penanggulangan Kekerasan dalam Rumah Tangga*. Surakarta: Senadimas Unisri.
- Crowel, dkk. 1996. *Understanding Violence Against Women*. Washington, DC: United States of America.
- Department of Foreign Affairs and Trade. 2018. *Literature Review: Ending Violence Against Women And Girls*. Barton: Department of Foreign Affairs and Trade.
- Fadhli, Ashabul. 2017. Buruknya Kualitas Perkawinan Pemicu Kekerasan Seksual: Studi terhadap Pelaku Kekerasan Seksual Anak di Kabupaten Agam. *Kafaah Journal*, 7 (2), Hlm. 177.
- Fakih, M. 2013. *Analisis Gender dan Transformasi Sosial*. Yogyakarta: Pustaka Pelajar.
- Farid, Muhammad Rifa'at Adiakarti. 2019. Kekerasan Terhadap Perempuan dalam Ketimpangan Relasi Kuasa: Studi Kasus Di Rifka Annisa Women's Crisis Center. *Sawwa: Jurnal Studi Gender*, 14(2), Hlm. 177.
- Fatmariza, Armelyta, 2018. Layanan Sistem Informasi Pengaduan Kekerasan Silaras Terhadap Perempuan dan Anak di Kota Padang. *Journal of Civic Education*, 1(3), Hlm. 252.
- Gerungan, W.A. 1991. *Psikologi Sosial*. Bandung: Eresco
- Harnoko, B Rudy. 2010. Dibalik Tindak Kekerasan Terhadap Perempuan. *Muwâzâh*, 2, (1), Hlm. 181.
- Klugman, J. 2017. *Gender Based Violence And The Law*. Washington: Georgetown University
- Kusmanto, T.Y. 2017. Penanganan Berbasis Rumah Sakit terhadap Korban Kekerasan Berbasis Gender. *Sawwa*, 7(2), 134.
- Margono, A. 2015. Perjuangan Kesetaraan Gender Tokoh Wanita pada Novel-Novel Karya Abidah El Khalieqy. *Seloka*, 4(1), (2015).
- Miles, B.M., & M. H. 1992. *Analisis Data Kualitatif* (Terjemahan). Universitas Indonesia
- Molo, Marcellus. 1993. Sex dan Gender Apa dan Mengapa. *Populasi*, 4(2), 87.
- Muhajarah, Kurnia. 2016. Kekerasan Terhadap Perempuan dalam Rumah Tangga: Perspektif Sosio-Budaya, Hukum, dan Agama. *Sawwa*, 11(2), Hlm. 130.
- Muttaqin, dkk. 2016. Bimbingan Konseling Bagi Perempuan Korban Kekerasan dalam Rumah Tangga di Lrc-Kjham Semarang. *Sawwa*, 11(2), Hlm. 185.
- Prasetyo, Yudi. 2017. Kekerasan terhadap Tokoh Perempuan dalam Novel Seperti Dendam Rindu Harus Dibayar Tuntas dan Lelaki Harimau Karya Eka Kurniawan. *Seloka*, 6 (2), Hlm. 153.
- Ridwan. 2007. Kekerasan dalam Rumah Tangga: Perspektif Hukum Islam. *Jurnal Syir'ah*, 14 (1), 150.
- Rochaety, Nur. 2013. Menegakkan Ham Melalui Perlindungan Hukum Bagi Perempuan Korban Kekerasan di Indonesia. *Palastren*, Vol. 7, No. 1, Hlm. 13.
- Sangeeta. 2018 The "True Darkness" Of The Slave Woman: Portrayal Of Women And Violence In Marlon James' The Book Of Night Women. *International Journal Of English Literature And Social Sciences (IJELS)*. 3(1), 15.
- Sari, Nurmalia. 2017. Kekerasan Perempuan dalam Novel Bak Rambut dibelah Tujuh Karya Muhammad Makhdlori. *Jurnal Literasi*, 1(2), 45.
- Siswanto. 2010. Metode Penelitian Sastra. Yogyakarta. Pustaka Pelajar
- Stoeber, J.K. 2014. Teach Your Children Well: Preventing Domestic Violence. *Seattle Journal for Social Justice*, 13(2), 517.
- Susanto, Nanang Hasan. 2015. Tantangan Mewujudkan Kesetaraan Gender Dalam Budaya Patriarki. *Muwazah*, 7(2), Hlm. 121.
- Wandi, Gusti. 2015. Rekonstruksi Maskulinitas: Menguk Peran Laki-Laki dalam Perjuangan Kesetaraan Gender. *Jurnal Ilmiah Kajian Gender*, 5(2), Hlm. 243.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).