

## SURGICAL MANAGEMENT OF CUTANEOUS MELANOMA IN THE ERA OF COVID-19 PANDEMIC: A SINGLE CENTER EXPERIENCE

Stefan Mladenović<sup>1</sup>, Predrag Kovačević<sup>1,2</sup>, Aleksandar Višnjić<sup>2,3</sup>,  
Marija Andjelković Apostolović<sup>2,3</sup>

Timely started surgical treatment represents the gold standard in melanoma therapy and keeps mortality at a low level. The pandemic caused by SARS-CoV-2 has affected the availability of health care both nationally and globally. The aim of this study was to examine the impact of the COVID-19 pandemic on newly operated cutaneous melanoma in patients and to contribute to identifying the impact of the pandemic on the healthcare system in Serbia. We conducted a single institution retrospective study including patients who consecutively underwent surgery for cutaneous melanoma at the Clinic for Plastic and reconstructive Surgery, University Clinical center of Niš, between January 1, 2018 and March 15, 2023. We compared the pre-pandemic (01/Jan/18 - 14/Mar/20) and pandemic (15/Mar/20 - 15/Mar/23) periods by evaluating patient age, sex, body distribution, Breslow thickness, pT staging, mitotic index rate and ulceration status. No differences were observed between age ( $p = 0.666$ ), sex ( $p = 0.720$ ), body distribution ( $p = 0.109$ ), Breslow thickness ( $p = 0.172$ ), pT staging ( $p = 0.274$ ), mitotic index rate ( $p = 0.257$ ), and ulceration status ( $p = 0.787$ ) in the two examined groups. Statistically significant differences were observed in the melanoma subtype ( $\chi^2 = 9.241$ ;  $p = 0.026$ ). Distribution of lentigo maligna in patients diagnosed with melanoma during the pandemic was statistically lower. To date, the diagnostic delay caused by COVID-19 has generally not led to unfavorable characteristics of the primary cutaneous melanoma. Follow-up studies are needed in the coming years to identify the potential impact on stage distribution and long-term survival. *Acta Medica Medianae 2023;62(3):95-102.*

**Key words:** COVID-19, melanoma, surgical treatment, Breslow thickness, diagnostic delay

<sup>1</sup>University Clinical Center Niš, Clinic for plastic and reconstructive surgery, Niš, Serbia

<sup>2</sup>University of Niš, Faculty of Medicine, Niš, Serbia

<sup>3</sup>Public Health Institute Niš, Niš, Serbia

Contact: Stefan Mladenović  
48 dr Zoran Djindjić Boulevard, 18000 Niš, Serbia  
E-mail: fahste1990@yahoo.com

### Introduction

Melanoma is one of the most malignant tumors in human population and the most malignant skin tumor. The incidence of melanoma varies around the world and it has been steadily rising in recent decades. Timely started surgical treatment represents the gold standard in melanoma therapy and keeps mortality at a low level (1, 2, 3). Patients with a higher Breslow index and the presence of ulceration at the time of diagnosis have a worse prognosis and a more aggressive form of the disease (4). Melanomas detected in a screening program are usually

thinner than melanomas detected by self-examination (5).

The pandemic caused by SARS-CoV-2 has affected the availability of health care both nationally and globally (6). Elective surgical procedures were not performed during the lockdown while surgical treatment of cancer was postponed (7). Delaying the surgical treatment of melanoma is devastating for the patient and leads to increased health care costs (8).

As a consequence of the delay in screening programs and surgical treatment of melanoma, many studies have indicated a significant decrease in the number of newly diagnosed patients with melanoma (9-11), while on the other side the Breslow thickness was higher (11 - 19). An increase in the number of patients in stage II of the disease and higher was also noted (20). On the other hand, many studies indicate that the COVID-19 pandemic had no effect on melanoma thickness (19, 21-24).

According to our knowledge, there is only one study on the impact of the COVID-19 pandemic on patients with cutaneous melanoma in the Republic of Serbia, which includes only patients operated on at the Clinic for Burns, Plastic

and Reconstructive Surgery of the University Clinical Center of Serbia (25).

### Aim

The aim of this study was to examine the impact of the COVID-19 pandemic on newly operated cutaneous melanoma in patients and to contribute to identifying the impact of the pandemic on the healthcare system in Serbia.

### Material and methods

We conducted a single institution retrospective study including patients who consecutively underwent surgery for cutaneous melanoma at the Clinic for Plastic and Reconstructive Surgery, University Clinical Center of Niš, between January 1, 2018 and March 15, 2023. The clinic is also a tertiary national referral center for skin cancer patients for the region of southeastern Serbia. Medical history and a clinical records database of the Clinic for Plastic and Reconstructive Surgery were used as the sources of data for this study. Demographic characteristics (gender, age), localization of melanoma and TNM classification according to the American Joint Committee on Cancer (TNM classifications for cutaneous melanoma, eighth edition) were analyzed.

The study procedures were carried out in accordance with the Declaration of Helsinki.

The following statistical parameters are presented by descriptive statistical analysis: arithmetic mean, standard deviation, absolute frequency (N), and structure index (%). The comparison of the frequency of occurrence of individual modalities of attribute features between groups was performed by Pearson  $\chi^2$  test. The mean values of the numerical features between the two independent groups of respondents were compared by Student's T-test or Mann-Whitney U-test. Statistical analysis was performed using an Excel program from the Microsoft Office software package and an SPSS program (version 18.0). The threshold for statistical significance was the level of statistical error less than 5% ( $p < 0.05$ ). The results of the statistical analysis are presented in tables and graphs.

### Results

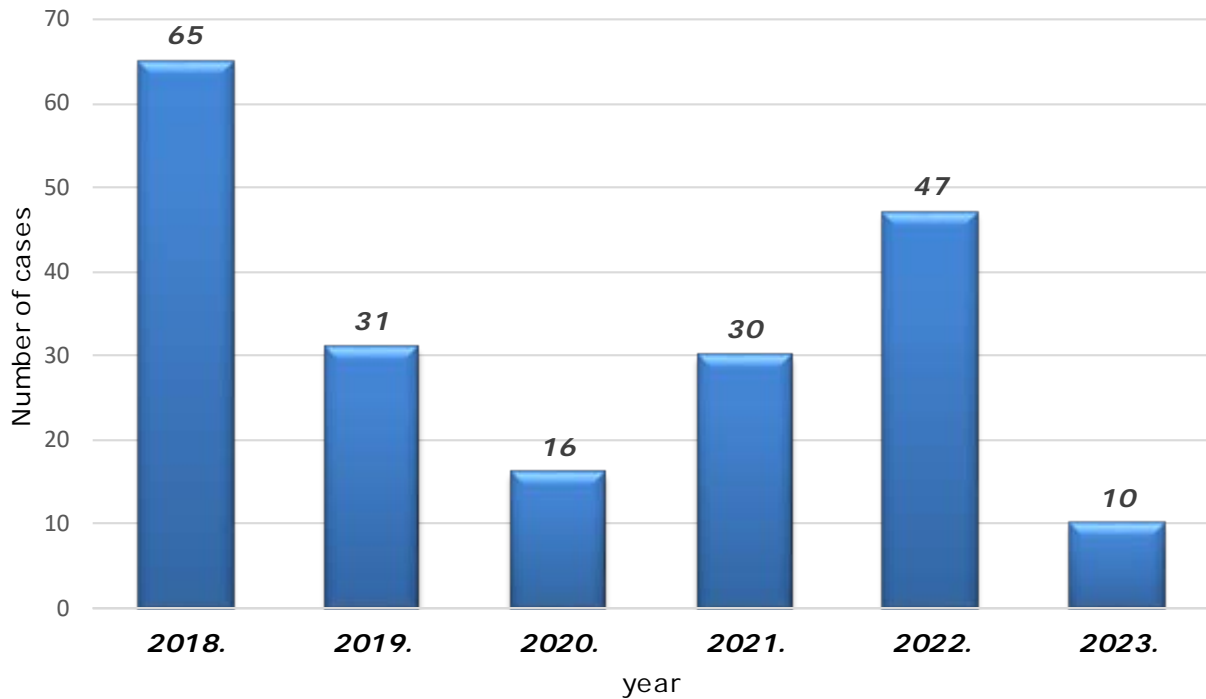
A total of 199 patients with cutaneous melanoma were included in the study. During

2018, 65 patients were registered, in 2019 there were 31, 16 in 2020, 30 in 2021, 47 in 2022, and 10 in the first 3 months of 2023 (Figure 1). In the period before the start of the pandemic, 104 cases (52.3%) were registered, while during the pandemic, there were 95 (47.7%). The average number of registered cases per year before the pandemic was  $48 \pm 24$ , while during the pandemic, it was  $31 \pm 15$ . Our sample contained almost equal numbers of males (99) and females (100). The most registered cases were in the age group of 61 to 80 years. The mean age of patients in the pre-pandemic group was 57.5 (SD 15.5), while in the pandemic group, it was 59.5 (SD 14.2). There were no significant differences in sex ( $p = 0.720$ ) and age ( $p = 0.666$ ) of the patients between the pre- and post-COVID groups (Table 1).

In both cohorts, the most common subtype of melanoma was superficial spreading melanoma (SSM), represented by 55.3%, followed by the nodular subtype 31.2%. Other subtypes of melanoma were represented by 13.5%. Statistically significant differences were observed in the melanoma subtype ( $\chi^2 = 9.241$ ;  $p = 0.026$ ). Distribution of lentigo maligna in patients diagnosed with melanoma during the pandemic was statistically lower.

Melanoma was most common on the trunk 49.2%, followed by the head and neck 20.1%, as well as the lower 16.1% and upper extremities 14.6%. There were no significant differences between the cohorts before and during the pandemic regarding the individual body distribution of melanoma and if there was an increase in the number of trunk melanomas and a decrease in the number of head and neck melanomas during the pandemic period ( $p = 0.109$ ).

Melanomas operated on in the two periods did not show a significant difference in Breslow thickness (2.1 vs. 2.7;  $p = 0.172$ ). Also there was no statistically significant difference in Breslow thickness during the examined years ( $p = 0.549$ ) (Table 2). There was no statistically significant change in the mitotic rate in the pandemic cohort ( $p = 0.257$ ), although the mitotic index doubled from 1 to 2. An increase in the number of melanomas with ulceration was also not observed. In both experimental groups, most patients were in the T1 stage of the disease. Also, there was no significant difference in the distribution of patients between stages in the groups ( $p = 0.274$ ) (Figure 2).

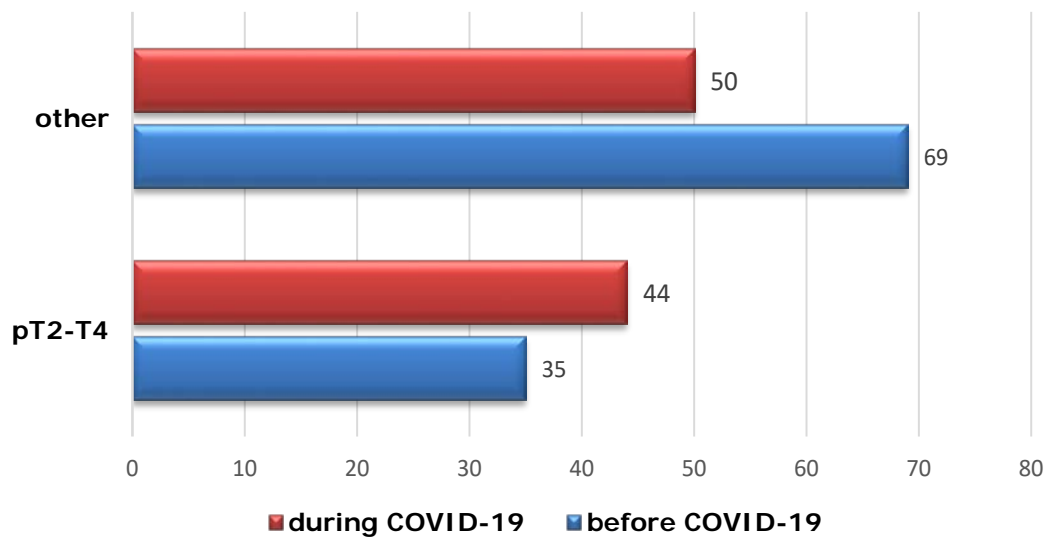


**Figure 1.** Number of diagnosed cases per year

**Table 1.** General characteristics of melanoma patients before and after the onset of the COVID-19 pandemic

	before COVID-19 n=104 (52.3%)	COVID-19 n=95 (47.7%)	p-value
Age (mean ± SD)	57.53±15.52	59.52±14.21	0.349 <sup>1</sup>
Age groups			
≤40 years	13(12.5)	9(9.5)	0.666 <sup>2</sup>
41–60 years	41(39.4)	37(38.9)	
61–80 years	44(42.3)	46(48.4)	
>80 years	6(5.8)	3(3.2)	
Sex			
Male	53(51.0)	46(48.4)	0.720 <sup>2</sup>
Female	51(49.0)	49(51.6)	
Body distribution			
Head and Neck	27(26.0)	13(13.7)	0.109 <sup>2</sup>
Trunk	44(42.3)	54(56.9)	
Upper extremities	15(14.4)	14(14.7)	
Lower extremities	18(17.3)	14(14.7)	
Melanoma subtype			
Superficial spreading	61(58.7)	49(51.6)	0.026 <sup>2</sup>
Lentigo maligna	13(12.5)	4(4.2)	
Nodular	28(26.9)	35(36.8)	
Others	2(1.9)	7(7.4)	
Breslow thickness (median, 25th–75th percentile)	0.75 (0.40-2.69)	1.0 (0.40-3.70)	0.172 <sup>3</sup>
Breslow thickness			
<1 mm	72(69.2)	53(55.8)	0.132 <sup>2</sup>
1.01–2 mm	6(5.8)	13(13.7)	

2.01–4 mm	12(11.5)	11(11.6)	
>4 mm	14(13.5)	18(18.9)	
pT staging			
In situ	23(22.1)	20(21.1)	0.274 <sup>2</sup>
T1	46(44.2)	30(31.6)	
T2	6(5.8)	11(11.6)	
T3	13(12.5)	14(14.7)	
T4	16(15.4)	20(21.1)	
Clark level			
I	23(22.1)	20(21.1)	0.682 <sup>2</sup>
II	45(43.3)	33(34.7)	
III	18(17.3)	19(20.0)	
IV	15(14.4)	19(20.0)	
V	3(2.9)	4(4.2)	
Mitotic index rate (median, 25th–75th percentile)	1.0 (1.0-3.0)	2.0 (0.0-4.0)	0.257 <sup>3</sup>
Ulcerations			
Yes	31(29.8)	30(31.6)	0.787 <sup>2</sup>
No	73(70.2)	65(68.4)	



**Figure 2.** Combined pT staging of melanoma patients before and during the pandemic

**Table 2.** Breslow thickness during years

Year	mean	SD	p-value
2018.	2.32	3.97	
2019	2.23	4.04	
2020.	3.44	4.80	
2021	3.43	4.38	
2022.	1.89	2.70	
2023.	1.80	1.55	0.549

## Discussion

The Coronavirus, formally known as SARS-Cov-2, detected in Wuhan (China) at the end of December 2019, affected the availability of health care around the world (26). Many studies across different countries have shown a decrease in the number of patients with skin tumors during the pandemic, as the research has shown in Serbia also (25). In some cases, this drop was up to 60% (12, 20, 27). The biggest drop in the number of newly diagnosed patients with skin tumors was in 2020, which corresponds with our results (28). The biggest reduction in the number of newly diagnosed cases was in patients over 60 years old, which is also the case in our study. Our results are partially in line with the results of other authors who indicate the impact of covid-19 on the overall decline in the number of melanoma diagnoses. While the decline in the number of melanoma diagnoses in other authors is present in all years since the beginning of the pandemic, in our study this decline is present only in 2020. (12, 15, 29). Studies have shown that early detection and adequate surgical treatment of thin lesions decrease the mortality rate in the short term. In the long term however, prevention could play a huge role (30).

The results of our study showed an increase in Breslow thickness with a higher mitotic index during the pandemic, which is in agreement with the results of other studies (11-19). In relation to this, we observed an increase in the number of patients in the pT-2 stage and above, which was also discussed by Shannon et al. who observed an

increased proportion in pT3-4 stage in patients operated on during the pandemic (13). A three month diagnostic delay according to Tejera et al. results in a significant drop off in the pT-1 stage (40% vs. 27%) and a doubled number of pT-4 cases (16% vs. 30%) as well as decreased five- and ten-year survival rate (31).

Because during the pandemic there is an evident delay in diagnosis and surgical treatment (32, 33), there are still no results on how this will affect five- and ten-year survival rate and how to improve screening programs, due to the lack of data and appropriate guidelines (34, 35).

The strength of our study is in the fact that it is based on the data of one of the largest institutions for the treatment of skin tumors in Serbia. Unfortunately, our study does not include patients with enlarged lymph nodes or distant metastases during this period, which represents a limitation of this study but leaves us space for further research. The sample of this study may contribute to further understanding of the impact of the Covid-19 pandemic and to promote the guidelines on how to improve the screening program and surgical treatment in these times.

## Conclusion

To date, the diagnostic delay caused by COVID-19 has generally not led to unfavorable characteristics of the primary cutaneous melanoma. Follow-up studies are needed in the coming years to identify the potential impact on stage distribution and long-term survival.

## References

1. Matthews NH, Li W-Q, Qureshi AA, Weinstock MA, Cho E. Epidemiology of Melanoma. In *Cutaneous Melanoma: Etiology and Therapy*; Exon Publications: Brisbane City, Australia, 2017; Volume 1, pp. 3–22. [[CrossRef](#)]
2. Aitken JF, Elwood M, Baade PD, Youl P, English D. Clinical whole-body skin examination reduces the incidence of thick melanomas. *Int J Cancer* 2010; 126(2): 450-8. [[CrossRef](#)] [[PubMed](#)]
3. Breitbart EW, Waldmann A, Nolte S, Capellaro M, Greinert R, Volkmer B, et al. Systematic skin cancer screening in Northern Germany. *J Am Acad Dermatol* 2012; 66(2): 201-11. [[CrossRef](#)] [[PubMed](#)]
4. Gershenwald JE, Scolyer RA, Hess KR, Sondak VK, Long GV, Ross MI, et al. Melanoma staging: Evidence-based changes in the American Joint Committee on Cancer eighth edition cancer staging manual. *CA Cancer J Clin* 2017; 67: 472–492. [[CrossRef](#)] [[PubMed](#)]
5. Avilés-Izquierdo JA, Molina-López I, Rodríguez-Lomba E, Marquez-Rodas I, Suarez-Fernandez R, Lazaro-Ochaíta P. Who detects melanoma? Impact of detection patterns on characteristics and prognosis of patients with melanoma. *J Am Acad Dermatol* 2016; 75(5): 967-974. [[CrossRef](#)] [[PubMed](#)]
6. Đikić M, Gujaničić D, Miličević-Nešić, I, Ercegovic M, Dželebdžić S, Lukić I, et al. Triage at a non-covid hospital during the COVID-19 pandemic. *Srp Med Cas Lek Komore* 2021; 2: 220–227. [[CrossRef](#)]
7. O'Reilly-Shah VN, Van Cleve W, Long DR, Moll V, Evans FM, Sunshine JE, et al. Impact of COVID-19 response on global surgical volumes: an ongoing observational study. *Bull World Health Organ.* 2020; 98(10): 671-682. [[CrossRef](#)] [[PubMed](#)]
8. Gomolin T, Cline A, Handler MZ. The danger of neglecting melanoma during the COVID-19 pandemic. *J Dermatolog Treat.* 2020; 31(5): 444-445. [[CrossRef](#)] [[PubMed](#)]
9. Gisondi P, Cazzaniga S, Di Leo S, Piaserico S, Bellinato F, Pizzolato M, et al. Impact of the COVID-19 pandemic on melanoma diagnosis. *J Eur Acad Dermatol Venereol* 2021; 35(11): e714-e715. [[CrossRef](#)] [[PubMed](#)]
10. Hoellwerth M, Kaiser A, Emberger M, Brandmaier M, Laimer M, Egger A, et al. COVID-19-Induced Reduction in Primary Melanoma Diagnoses: Experience from a Dermatopathology Referral Center. *J Clin Med* 2021; 10(18): 4059. [[CrossRef](#)] [[PubMed](#)]
11. Aldecoa-Otalora JS, Pascual LL, Iturriagagoitia AC, Bayona, JY. [Translated article] Has the COVID-19 Pandemic and Lockdown Affected Breslow Thickness in Cutaneous Melanoma? *Actas Dermosifiliogr* 2022; 113: e107–e109. [[CrossRef](#)] [[PubMed](#)]
12. Ricci F, Fania L, Paradisi A, Di Lella G, Pallotta S, Sobrino L, et al. Delayed melanoma diagnosis in the COVID-19 era: increased breslow thickness in primary melanomas seen after the COVID-19 lockdown. *J Eur Acad Dermatol Venereol* 2020; 34(12): e778-e779. [[CrossRef](#)] [[PubMed](#)]
13. Shannon AB, Sharon CE, Straker RJ 3rd, Miura JT, Ming ME, Chu EY, et al. The impact of the COVID-19 pandemic on the presentation status of newly diagnosed melanoma: A single institution experience. *J Am Acad Dermatol* 2021; 84(4): 1096-1098. [[CrossRef](#)] [[PubMed](#)]
14. Weston GK, Jeong HS, Mu EW, Polsky D, Meehan SA. Impact of COVID-19 on melanoma diagnosis. *Melanoma Res* 2021; 31(3): 280-281. [[CrossRef](#)] [[PubMed](#)]
15. Gualdi G, Porreca A, Amoroso GF, Atzori L, Calzavara-Pinton P, De Tursi M, et al. The Effect of the COVID-19 Lockdown on Melanoma Diagnosis in Italy. *Clin Dermatol* 2021; 39(5): 911-919. [[CrossRef](#)] [[PubMed](#)]
16. Kostner L, Cerminara SE, Pamplona GSP, Maul JT, Dummer R, Ramelyte E, et al. Effects of COVID-19 Lockdown on Melanoma Diagnosis in Switzerland: Increased Tumor Thickness in Elderly Females and Shift towards Stage IV Melanoma during Lockdown. *Cancers (Basel)* 2022; 14(10): 2360. [[CrossRef](#)] [[PubMed](#)]
17. Molinier R, Roger A, Genet B, Blom A, Longvert C, Chaplain L, et al. Impact of the French COVID-19 pandemic lockdown on newly diagnosed melanoma delay and severity. *J Eur Acad Dermatol Venereol* 2022; 36(3): e164-e166. [[CrossRef](#)] [[PubMed](#)]
18. Lamm R, Lyons W, So W, Willis AI. Advanced-Stage Melanoma at Presentation Following the Peak of the Pandemic: A COVID-19 Cancer Canary in a Coal Mine. *World J Surg* 2022; 46(8): 1820-1825. [[CrossRef](#)] [[PubMed](#)]
19. Ungureanu L, Apostu AP, Vesa ȘC, Cășeriu AE, Frățilă S, Iancu G, et al. Impact of the COVID-19 Pandemic on Melanoma Diagnosis in Romania-Data from Two University Centers. *Int J Environ Res Public Health* 2022; 19(22): 15129. [[CrossRef](#)] [[PubMed](#)]
20. Lallas A, Kyrgidis A, Manoli SM, Papageorgiou C, Lallas K, Sotiriou E, et al. Delayed skin cancer diagnosis in 2020 because of the COVID-19-related restrictions: Data from an institutional registry. *J Am Acad Dermatol* 2021; 85(3): 721-723. [[CrossRef](#)] [[PubMed](#)]
21. Gaunt N, Green RL, Motta LF, Jamieson LA. Skin cancers in lockdown: no impact on pathological tumour staging. *Br J Dermatol* 2021; 185(4): 844-846. [[CrossRef](#)] [[PubMed](#)]
22. Sangers TE, Wakkee M, Kramer-Noels EC, Nijsten T, Louwman MWJ, Jaspars EH, et al. Limited impact of COVID-19-related diagnostic delay on cutaneous melanoma and squamous cell carcinoma tumour characteristics: a nationwide pathology registry analysis. *Br J Dermatol* 2022; 187(2): 196-202. [[CrossRef](#)] [[PubMed](#)]
23. Gedeah C, Damsin T, Absil G, Somja J, Collins P, Rorive A, et al. The impact of COVID-19 on the new diagnoses of melanoma. *Eur J Dermatol* 2021; 31(4): 565-567. [[CrossRef](#)] [[PubMed](#)]
24. McFeely O, Hollywood A, Stanciu M, O'Connell M, Paul L. Comment on "The impact of the COVID-19 pandemic on the presentation status of newly diagnosed melanoma: A single institution

- experience". *J Am Acad Dermatol* 2021; 85(6): e419-e420. [[CrossRef](#)] [[PubMed](#)]
25. Jeremić J, Sudecki B, Radenović K, Mihaljević J, Radosavljević I, Jovanović M, et al. Impact of the COVID-19 Pandemic on Melanoma Diagnosis: Increased Breslow Thickness in Primary Melanomas-A Single Center Experience. *Int J Environ Res Public Health* 2022; 19(24): 16806. [[CrossRef](#)] [[PubMed](#)]
26. Gorbalenya AE, Baker SC, Baric RS, de Groot RJ, Drosten C, Gulyaeva AA, et al. The species Severe acute respiratory syndrome-related coronavirus: Classifying 2019-nCoV and naming it SARS-CoV-2. *Nat Microbiol* 2020; 5: 536–544. [[CrossRef](#)] [[PubMed](#)]
27. Longo C, Pampena R, Fossati B, Pellacani G, Peris K. Melanoma diagnosis at the time of COVID-19. *Int J Dermatol* 2021; 60(1): e29-e30. [[CrossRef](#)] [[PubMed](#)]
28. Ferrara G, De Vincentiis L, Ambrosini-Spaltro A, Barbareschi M, Bertolini V, Contato E, et al. Cancer Diagnostic Delay in Northern and Central Italy During the 2020 Lockdown Due to the Coronavirus Disease 2019 Pandemic. *Am J Clin Pathol* 2021; 155(1): 64-68. [[CrossRef](#)] [[PubMed](#)]
29. Wang R, Helf C, Tizek L, Neuhauser R, Eyerich K, Zink A, et al. The Impact and Consequences of SARS-CoV-2 Pandemic on a Single University Dermatology Outpatient Clinic in Germany. *Int J Environ Res Public Health* 2020; 17(17): 6182. [[CrossRef](#)] [[PubMed](#)]
30. Coory M, Baade P, Aitken J, Smithers M, McLeod GR, Ring I. Trends for in situ and invasive melanoma in Queensland, Australia, 1982-2002. *Cancer Causes Control* 2006; 17(1): 21-7. [[CrossRef](#)] [[PubMed](#)]
31. Tejera-Vaquero A, Nagore E. Estimated effect of COVID-19 lockdown on melanoma thickness and prognosis: a rate of growth model. *J Eur Acad Dermatol Venereol*. 2020 Aug; 34(8): e351-e353. [[CrossRef](#)] [[PubMed](#)]
32. NCCN. Clinical Practice Guidelines in Oncology: NMSC. Available online: <https://www.nccn.org/guidelines/recently-published-guidelines> (accessed on 20 March 2023).
33. Garbe C, Amaral T, Peris K, Hauschild A, Arenberger P, Bastholt L, et al. European consensus-based interdisciplinary guideline for melanoma. Part 1: Diagnostics - Update 2019. *Eur J Cancer* 2020; 126: 141-158. [[CrossRef](#)] [[PubMed](#)]
34. Rashid S, Tsao H. Effect of the COVID-19 Pandemic on Delayed Skin Cancer Services. *Dermatol Clin* 2021; 39(4): 627-637. [[CrossRef](#)] [[PubMed](#)]
35. Coit DG, Thompson JA, Albertini MR, Barker C, Carson WE, Contreras C, et al. Cutaneous Melanoma, Version 2.2019, NCCN Clinical Practice Guidelines in Oncology. *J Natl Compr Canc Netw* 2019; 17(4): 367-402. [[CrossRef](#)] [[PubMed](#)]

Originalni rad

UDC: 616-006.81-089:578.834  
doi: 10.5633/amm.2023.0314

## HIRURŠKO LEČENJE MELANOMA KOŽE U ERI PANDEMIJE KOVIDA 19: ISKUSTVO JEDNOG CENTRA

Stefan Mladenović<sup>1</sup>, Predrag Kovačević<sup>1,2</sup>, Aleksandar Višnjic<sup>2,3</sup>,  
Marija Anđelković Apostolović<sup>2,3</sup>

<sup>1</sup>Univerzitetski klinički centar Niš, Klinika za plastičnu i rekonstruktivnu hirurgiju, Niš, Srbija

<sup>2</sup>Univerzitet u Nišu, Medicinski fakultet, Niš, Srbija

<sup>3</sup>Institut za javno zdravlje Niš, Niš, Srbija

Kontakt: Stefan Mladenović  
Bulevar dr Zorana Đinđića 48, 18000 Niš, Srbija  
E-mail: fahste1990@yahoo.com

Pravovremeno započeto hirurško lečenje predstavlja zlatni standard u terapiji melanoma i održava mortalitet na niskom nivou. Pandemija koju je izazvao virus kovid 19 uticala je na dostupnost zdravstvene zaštite, kako na nacionalnom, tako i na globalnom nivou. Cilj ove studije je da ispita uticaj pandemije kovid 19 na novooperisane bolesnike sa melanomom kože i da doprinese identifikovanju uticaja pandemije na zdravstveni sistem u Srbiji. Sproveli smo retrospektivnu studiju koja je uključivala bolesnike sa melanomom kože hirurški lečene na Klinici za plastičnu i rekonstruktivnu hirurgiju Univerzitetskog kliničkog centra Niš u periodu od 1. januara 2018. do 15. marta 2023. godine. Upoređivali smo periode pre pandemije (01/01/2018 – 14/03/2023) i tokom pandemije (15/03/2020 – 15/03/2023) procenom starosti bolesnika, pola, zastupljenosti melanoma na određenim delovima tela, debljine po Breslovu, pT stadijuma, stope mitotičkog indeksa, podtipa melanoma i prisustva ulceracije. Nisu uočene razlike između starosti ( $p = 0,666$ ), pola ( $p = 0,720$ ), zastupljenosti melanoma na određenim delovima tela ( $p = 0,109$ ), debljini po Breslovu ( $p = 0,172$ ), pT stadijumu ( $p = 0,274$ ), stopi mitotičkog indeksa ( $p = 0,257$ ) i prisustva ulceracije ( $p = 0,787$ ) u dvema ispitivanim grupama. Statistički značajne razlike uočene su kod podtipova melanoma ( $\chi^2 = 9,241$ ;  $p = 0,026$ ). Distribucija lentigo maligna kod bolesnika sa dijagnozom melanoma tokom pandemije bila je statistički niža. Do danas, kašnjenje u postavljanju dijagnoze melanoma kože, usled pademije izazvane kovidom 19, generalno nije dovelo do nepovoljnih karakteristika primarnog kožnog melanoma. Potrebno je sprovesti dodatne studije u budućnosti kako bi se identifikovali potencijalni uticaj na distribuciju po fazama i dugoročna stopa preživljavanja. *Acta Medica Medianae* 2023;62(3):95-102.

**Ključne reči:** kovid 19, melanom, hirurško lečenje, debljina po Breslovu, dijagnostičko kašnjenje

"This work is licensed under a Creative Commons Attribution 4.0 International (CC BY 4.0) Licence".