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MISSION, BACKGROUND & AIMS

European integration process has given rise to institutional, economic, political and cultural cooperation among countries as well as their integration in a single economic system. At the same time efforts are made to preserve national identity of the member countries as well as their regional diversity. Recognition of the diversity of regions, their distinct characteristics and comparative advantages in a unified Europe is of utmost importance for the membership of the Republic of Croatia in the European Union.

The tourism has been recognized as a strategic strongpoint in the Adriatic part of Croatia, whereas the Panonian region of Croatia does not have a clear vision of that. It is therefore vital to explore and determine the underlying guidelines for the development. Since they have always been connected with the practical side of life, the polytechnics are the institutions responsible for the future development. In the last ten years since the establishment of the Polytechnic of Pozega, the development has been focusing on education and the application of knowledge in practice, which has distinguished the Polytechnic as an initiator and an actual development factor.

International Conference "Vallis Aurea" is international platform to achieve this objectives. It will serve as a permanent platform for an interdisciplinary approach to resolving issues related to regional development and innovation. It covers various areas ranging from theory to practical application and continued promotion based on inventiveness and regional particularities.

This conference is the first step in our interdisciplinary attempt to organize long-lasting international cooperation.

All the papers presented at the conference and published in the Proceedings meet the following criteria:

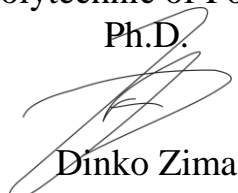
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On behalf of the Organizers we would like to thank all the authors on their high-quality papers as well as all the reviewers on their considerate review.

We are looking forward to see you at the next 5th International Conference „Vallis Aurea“ in 2016.

Interim Dean of
Polytechnic of Pozega

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TREATMENT OF HERPES ZOASTER CUTANEOUS ERUPTIONS

TERAPIJA KOŽNIH PROMJENA KOD HERPESA ZOSTERA

ANDRIC, Zdravko; PETKOVIC, Dobrinka; BAICA, Tomislav & GOTOVAC, Nikola

Abstract: *The goal of this paper is to emphasize treatment of Herpes zoster eruptions. The pain, hyperesthesia, paresthesia, and tingling sensations or itching are not specific signs. Duration of the disease is shortened by early treatment with acyclovir, but secondary bacterial infections are not affected by this treatment. In order to prevent the secondary infection, disinfectants can be applied locally. However, this does not affect the sensations or pain. Application of compounding pharmaceuticals containing acetylsalicylic acid solution in diethyl ether yields good results. The skin is kept dry, and disinfected, while the sensation of pain and itching is reduced. Also, the chance of secondary infection is lowered, and the duration of the disease is shortened.*

Key words: *herpes zoster, cutaneous eruptions, treatment*

Sažetak: *Cilj ovog prikaza je naglasiti liječenje kožnih promjena Herpes zoster. Simptomi koji prethode kožnim promjenama, bolovi, parestezije, peckanje ili svrbež zahvaćenog dermatoma nisu specifični. Rani početak liječenja aciklovirom nesumnjivo skraćuje trajanje bolesti i može spriječiti nastanak i komplikacija, no ne sprečava razvoj sekundarne bakterijske infekcije. Liječenje lokalnom primjenom dezinficijensa može spriječiti nastanak bakterijske infekcije, no ne rješava problem lokalnog osjeta boli. Lokalna primjena magistralnog pripravka otopine acetilsalicilne kiseline u dietileteru daje dobre rezultate. Koža se održava suhom, dezinficirana, smanjuje osjet boli ili svrbeži. Također, smanjuje se mogućnost sekundarne bakterijske infekcije i skraćuje se vrijeme trajanja bolesti.*

Cljučne riječi: *herpes zoster, kožne promjene, liječenje*



Authors' data: Zdravko **Andric**, mr.sc., dr.med., infektolog; Dobrinka, **Petkovic**, dr.med, infektolog; Tomislav **Baica**, dr. med. neurolog; Nikola **Gotovac** dr. med. radiolog; Op a županijska bolnica Požega, Osje ka 107

1. Uvod

Nakon primoinfekcije, *varicella-zoster* virus u latentnom stanju zaostaje u tkivu ganglija koji su pridruženi kranijalnim živcima (ganglion Gasseri, ganglion oticum), te u dorzalnim korijenima spinalnih ganglija [1]. Nakon manjeg broja, a uobičajeno nakon niza godina, može doći do reaktivacije virusa i pojave bolesti [2]. Kako se virus, nakon uspješnog izbjegavanja imunskih mehanizama i uspješne replikacije, može širiti retrogradno, prema mozgu, tako i anterogradno duž perifernog neurona [3], te tako nastaje nekoliko bolesti, ovisno o mjestu lokacije virusa u vrijeme „sustizanja“ imunskih obrambenih mehanizama. Sam virus ima i citotoksično djelovanje [4]. Ovaj prikaz ima za cilj naglasiti važnost pravovremenog, ranog počinjanja liječenja kožnih promjena u tijeku bolesti.

2. Uzroci

Uzroci reaktivacije virusa nisu poznati. Retrogradnim širenjem virusa dolazi do razvoja seroznog meningitisa, rjeđe meningoencefalitisa ili transferalnog mijelitisa [5]. Kod anterogradnog napredovanja, virusna replikacija se završava u epitelnim stanicama kože inervacijskog područja ganglija (dermatomu).

3. Klinička slika

Klinički se manifestira neuralgičnim bolovima, parestezijama, ponekad svrbežima, a mogući su i neurološki ispadi prije same erupcije vezikula. Ova faza traje 48-72 sata. Eruptivna faza obično traje 3-5 dana, a ovisno o imunitetu oboljelog, može i više od 10 dana. Eflorescence na koži uobičajeno egzistiraju 5-15 dana, a mogu, u rjeđim slučajevima 30 dana, ili čak i duže, uz kutanu i visceralnu diseminaciju [6]. Kod 10% imunokompetentnih osoba može doći do izbijanja generaliziranog vezikuloznog osipa, što se događa kod većeg broja imunokompromitiranih bolesnika [7,8,9]. Anterogradno kretanje virusa dovodi do neuritisa, s mogućim neurološkim ispadima u smislu pareze ili čak paralize živca [10], no daleko su najčešće gnojne komplikacije izazvane naseljavanjem bakterijskih patogena na rupturirane vezikule [11]. Najčešće se na tako oštećenu kožu naseljavaju bakterije roda *Staph. Spec.* i *Sreptococcus spec.*, a klinički se manifestira kao impetigo, no može se razviti i erizipel i šarlah, a prodorom infekcije kroz korijum, dolazi do razvoja celulitisa, flegmone ili nekrotizirajućeg fascitisa. Može se razviti streptokokni ili stafikokokni toksični šok sindrom.

4. Liječenje

Liječenje aciklovirom danas se vrlo uspješno sprečava nastanak većine komplikacija, naravno ako se s liječenjem započne dovoljno rano [12]. Istovremeno liječenje kožnih promjena nakon pucanja vezikula, ponekad i erozija okolne kože, kada nastane iznimno pogodno mjesto za razvoj infekcije, isto tako zahtijeva posebnu pozornost. Specifično liječenje mastima aciklovira može biti efikasno, ako se započne odmah po pojavi prvih eflorescenci, no ne može spriječiti razvoj

sekundarne bakterijske infekcije, niti ima uloge u smanjenju bolova [13]. Upotreba dezinficijensa poput kalijevog hipermangana, nije loša, no niti ona ne umanjuje bolove.

Naše, gotovo 10-godišnje iskustvo liječenja kožnih promjena magistralnim pripravkom otopine acetilsalicilne kiseline u dietileteru (ASK melem), daje dobre rezultate. Sve bolesnike u eruptivnoj fazi bolesti, tretiramo ovim pripravkom 4-5 puta na dan, do faze otpadanja krusta. Najveći broj ovako liječenih bolesnika je, već nakon nekoliko premazivanja, osjetio bitno poboljšanje, naročito smanjenje intenziteta bolova, a tim i bitnom smanjenju osjeta bolesti. Tretman ovim pripravkom, osim smanjenja bolova, doprinosi osjetu svježine kože i prestanka svrbeži, bitno smanjuje mogućnost sekundarne bakterijske infekcije, a time mogućnosti razvoja komplikacija i skraćuje vrijeme liječenja. Trajanje bolesti, do faze otpadanja krusta, gotovo se prepolovilo, a samo mali broj bolesnika se žalio na višetjedne neuralgične bolove, koje smo, samo povremeno kupirali lidokainskim blokadama kroz nekoliko dana [14]. Spremanjem mogućih bakterijskih infekcija, bitno se smanjilo i ordiniranje antibiotika u liječenju ovih bolesnika, a ASK melemom smo tretirali i bolesnike kod kojih je već došlo do blaže sekundarne bakterijske infekcije, isto tako s vrlo dobrim učinkom, a bez ordiniranja antibiotika.

5. Prikaz tijeka bolesti i liječenja

Bolesnik je primljen na naš odjel trećeg dana akutne bolesti praćene jakim bolovima i otupom lijeve polovice lica, uz edem obje vještice i lijevog oka. Od ranije je liječnik povećao krvni tlak. U djetinjstvu je prebolio vodene kozice. Kod prijema, koža lijeve polovice lica i dijela vlasišta bila je zahvaćena vezikulama, dijelom raspuknutim, uz crvenilo okolne kože. Objestice i lijevog oka bile su izrazito edematozne (slika 1). Laboratorijski nalazi pokazali su blaže povišene upalne parametre. Odmah po prijemu započeto je liječenje peroralnim aciklovirom, a zatim je započeta i lokalna terapija zahvaćenog dijela kože acetilsalicilnom kiselinom u dietileteru, pet puta na dan. Poboljšanje općeg stanja, smanjenje bolova i poboljšanje lokalnog nalaza uslijedilo je već drugog dana liječenja (slika 2).



Slika 1. Prije početka liječenja



Slika 2. Drugi dan liječenja

Tre eg dana lije enja bolovi su bili minimalni, a popucale herpeti ne vezikule su bile u stadiju krusta, bez imalo znakova lokalne infekcije. Edem vje a lijevog oka bio je minimalan (slika 3). Bolesnik je pokazivao zadovoljstvo na inom i rezultatima lije enja. Narednog dana, došlo je do potpune regresije edema vje a lijevog oka, uz gotovo potpuno smirenje bolova (slika 4). Kontrolne vrijednosti upalnih parametara bile su gotovo normalne.



Slika 3. Tre i dan lije enja



Slika 4. etvrti dan lije enja

Petog dana lije enja dolazi do postupnog otpadanja krusta (slika 5), a završeno je i planirano petodneвно lije enje aciklovirom. Proširena laboratorijska obrada nije pokazivala sumnju kako bi se razvoj bolesti eventualno mogao povezati s nekim oblikom imunodeficijencije, odnosno mogu eg razvoja maligne bolesti, kojom bi se mogao objasniti pad imuniteta i razvoj herpesa zoster.

Bolesnik je otpušten na ku nu rehabilitaciju te je naru en na kontrolni pregled za pet dana. Kontrolnim pregledom, desetog dana od po etka lije enja, vidljivo je odljuštenje svih krustica, a vidljiva je bila tek blaža hiperpigmentacija dijela kože prethodno zahva ene osipom herpesa zoster. Kontrolni laboratorijski nalazi nisu pokazali zna ajnije odstupanje od normalnih vrijednosti primjernih dobi, te se bolesnik smatrao posve izlije enim (slika 6).



Slika 5. Peti dan lije enja



Slika 6. Deseti dan od po etka lije enja

6. Zaključak

Kod osoba oboljelih od herpesa zoster vrlo je bitno liječenje što je započeto što je ranije po kliničkoj manifestaciji. Liječenje imunokompetentnih, a pogotovo osoba s nekim od oblika imunodeficijencije, zahtijeva liječenje aciklovirom u kombinaciji s lokalno primijenjenom terapijom. Prevencija mogućih bakterijskih infekcija bitno smanjuje ordiniranje antibiotika, a upotreba ASK melemom skraćuje i vrijeme trajanja bolesti. ASK melemom smo liječili i bolesnike kod kojih je već došlo do razvoja lokalne sekundarne bakterijske infekcije, i uz porast vrijednosti upalnih parametara, s dobrim kliničkim odgovorom, i bez primjene antibiotika.

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Photo 001. Four / Četiri

EXPERIENCES OF APPS USAGE IN WINE MARKETING

ISKUSTVA PRIMJENE MOBILNIH APLIKACIJA U MARKETINGU VINA

ANDRLIC, Berislav & DEL VECHIO, Manuel

Abstract: *This preliminary study brings theoretical and practical comparative analysis of the mobile marketing in wine tourism. It was seen growth in the number of users of mobile applications in tourism, which brings numerous advantages in wine marketing by Croatian managers. This paper analyzes the functions of the world's leading application for a wine that can be put into operation the development of Croatian tourism market and branding Croatia as wine region.*

Key words: *wine industry, tourism, mobile marketing*

Sažetak: *Ova preliminarna studija donosi teoretsku i praktičnu komparativnu analizu mobilnog tržišta sa tržištem vina. Uviđaju se trend rasta broja korisnika mobilnih aplikacija u turizmu, što donosi brojne prednosti u marketingu vina i kod hrvatskih menadžera. U radu se analiziraju funkcije vodećih svjetskih aplikacija za vino koje se mogu staviti u funkciju razvoja hrvatskog turističkog tržišta i brendiranja Republike Hrvatske kao vinske regije.*

Key words: *vinska industrija, turizam, mobilni marketing*



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1. Introduction

Marketing is a societal process by which the creation, and offer free exchange of products and services that carry the value of others, allows individuals and groups to obtain what they need or what they want. Four major support to the underlying concepts of marketing are: market focus, customer orientation, coordinated marketing and profitability. [1]

Electronic marketing (e-marketing, telemarketing) is a way to achieve the company's marketing activities with intensive use of information and communication (Internet) technology. Mobile marketing goes a step further in using information and communication technologies. Mobile Marketing Association defines mobile marketing as "the use of wireless media as the integration of content delivery and direct response marketing communications transmission within the program or through a combination of independent media [2].

So, what makes mobile marketing for unique compared to other marketing channels, it is best to show the characteristics and dimensions of mobile marketing listed below using the example of wine tourism.

2. Brief theoretical overview of mobile marketing

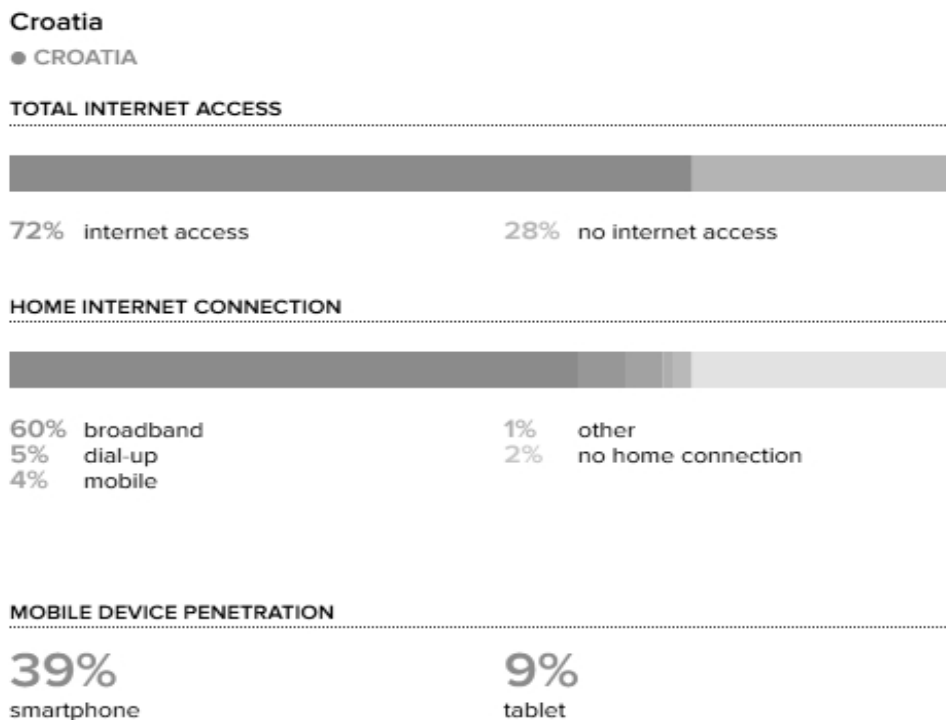
James and other authors have researched the participation of users and key characteristics of the resulting advantages of mobile marketing over other marketing channels. Besides the participation of beneficiaries experts cite several attractive features of mobile marketing [3]:

- Direct and immediate communication anytime and anywhere,
- Focus on target groups,
- Inexpensive marketing channel,
- Measurable effects for the ROI,
- Huge potential for viral marketing as they are prone to relay messages of groups,
- Easily integrates into the media mix with other media such as television, print, radio and the like.

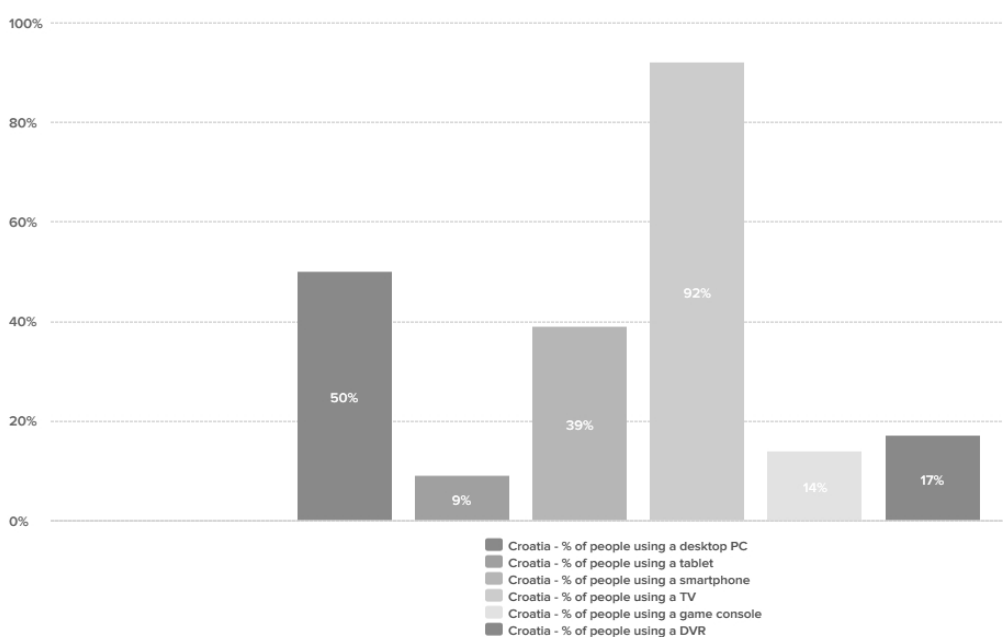
With its interactivity and the possibility of direct communication with the user, mobile marketing represents an enormous opportunity that recognize all types of organizations, especially in wine tourism. The integration of mobile technology into existing communication campaigns, companies allow their customers to take advantage of special offers, cash in mobile coupons, customers can more easily obtain the additional information and have the ability to receive alerts about relevant events. Mobile marketing has enabled advertisers to create personalized multimedia campaigns for their target groups and users the ability to react or respond directly to the tourism or wine campaign.

3. State and trends on Croatian mobile market

The research phase had two phases of data collection, both qualitative. During the first phase, the research was conducted with Google trends tool. The research method selected for this phase was a descriptive analysis. The method was selected as the most convenient since it represents a series of data intended to create a view of mobile market in Croatia. It can be viewed that market is in integrated phase but it has a space for development.



Picture 1. Mobile device penetration in Croatia [4]



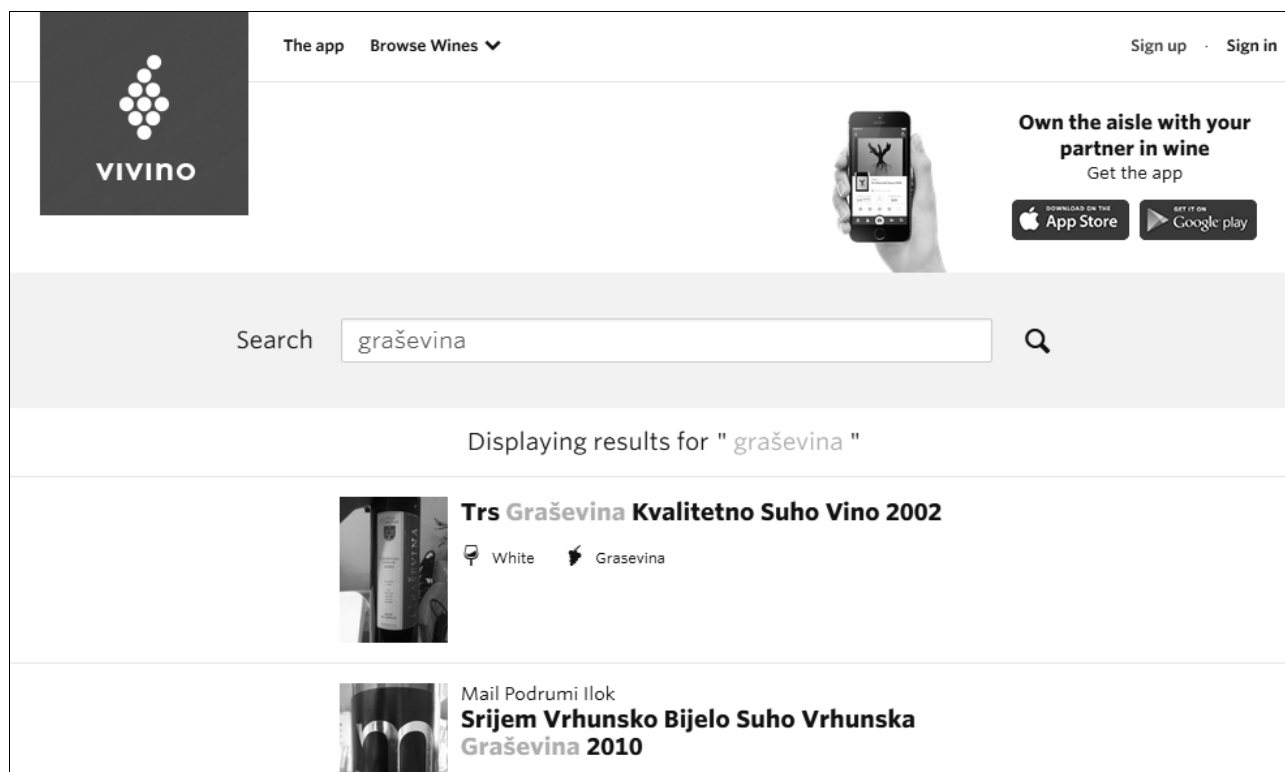
Picture 2. Structure of mobile marketing users [4]

4. Analysis of wine apps in tourism marketing and research findings

Wireless mobile applications have a range of unique features, which impact the nature and specifics designed for tourists in wine marketing. Such features of mobile devices include: their ubiquity (they are affordable and portable); personalization (a typical PDA belongs to and can be identified with a single individual); and location-awareness (connection established by the wireless medium can be used to determine the physical location of the device). Good marketing management is based on building longstanding interpersonal relations. When traditional media advertising and e-marketing are compared with m-marketing, several characteristics come up as limiting factors on the one hand, but a challenge on the other: ubiquity, convenience, localization, and personalization and interactivity above all. [5]

After author interview with 10 hospitality managers in Croatia, they noted that there is a need for using mobile apps in their industry in function of promoting wines and tourist destination. They recognized few actual mobile apps useful for their industry. The following describes the function of these apps in wine marketing.

Vivino is app has the snapshot feature - a pic on mobile phone will help tourists to find out a wine's average rating, price, and show comments. Once tourist rate/wish list three wines, the app will start recommending bottles for try (the more wines tourist rate, the more on the nose the recommendations become). [6] Example of browsing with name of wine „graševina“ is presented below.



Picture 3. Vivino browsing [6]

Hello Vino helps tourist if they want to know which wine to pair with some kind of food. Hello Vino helps tourists to find the right bottle to go with the right food in a format that's easy to follow but not dumbed down. Novice wine enthusiast Meghan Spork of Chicago loves being able to save the wines that she's tried and liked. "I can't remember what I had for breakfast yesterday, let alone which wine I liked the last time I came to this particular restaurant. [7]

Crushed is a socially driven wine app where users can track, search and share their favorite wines across social networks. This is wine application that improves tourist wine life in any setting. With Crushed they can: search or scan a barcode, explore a wine, track the wines you drink, create your own wine database, connect with your social networks and follow and interact with your friends. [8]

5. Conclusion

Wine brands and retailers in Croatia are finally taking advantage of mobile and social to market themselves in a cheap and efficient way. Mobile applications such as Vivino, Hello Vino and Crushed provide opportunities for wine brands and wineries to promote themselves within a mobile and social context, creating a conversation with tourists. Wine brands tend to be slow to adopt newer technology, but they are finally beginning to realize the potential in mobile and tourism marketing.

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