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Original Research Article

A nationwide questionnaire-based survey on practice patterns and management of chronic stable angina with a controlled release formulation of trimetazidine

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ABSTRACT

Background: There is lack of real-world evidence on various aspects of chronic stable angina (CSA). Hence, a questionnaire-based survey was conducted to garner real-world data about the prevalence of CSA among Indian patients; the associated comorbidities among these patients; management practices for CSA in India; and factors affecting compliance in patients with CSA with a special focus on day and night pack for trimetazidine controlled release (CR) 35 mg BD tablets.
Methods: In all, 100 health care practitioners (HCPs) who each observed 15 patients with CSA in their clinical practice participated in this quantitative, cross-sectional, questionnaire-based study. The data were collected using a structured questionnaire with 30 questions grouped into 5 sections. Data were analyzed using percentages.
Results: The results from the survey showed that 52.7% HCPs had observed 31-50% of angina patients with diabetes mellitus as comorbidity. As per the questionnaire survey, 77.4% HCPs preferred trimetazidine as a second-line agent when an angina patient was not responding to beta-blockers, calcium channel blockers (CCBs), and nitrates. Furthermore, 30.1% of HCPs preferred trimetazidine CR 35 mg BD as it improved exercise tolerance as well. Results from the survey reported that 65.6% HCPs agreed with the statement that day and night packs of trimetazidine tablets help in improving patient compliance and adherence to therapy.
Conclusions: Trimetazidine CR 35 mg BD appears to have a safety profile suitable for various conditions and for patients with multiple comorbidities. Trimetazidine day and night packs of tablets help in improving patient compliance and adherence to therapy.

Keywords: Chronic stable angina, Trimetazidine, Questionnaire-based survey

INTRODUCTION

Chronic stable angina (CSA) is a common manifestation of coronary artery disease (CAD), which affects as many as 112 million people worldwide.[1] It refers to the predictable, reproducible occurrence of pressure or a choking sensation in the chest or adjacent areas caused by myocardial ischemia in association with physical or emotional stress.[2] Angina symptoms can often be disabling, thus having a major impact on patient quality of life and resulting in considerable financial burden.[1] CSA is diagnosed when symptoms are present for at least 2 months without changes in severity, character, or

triggering circumstances. CSA is provoked by exertion and relieved by rest because myocardial supply and demand are determinants of coronary ischemia. CSA symptoms are predictable in frequency, severity, duration, and provocation.[3]

In the primary-care setting, treatment of stable angina pectoris is usually initiated with conventional antianginal agents such as β adrenoceptor antagonists (β-blockers), calcium channel antagonists, or nitrates.[4] These antianginal medications affect cardiovascular hemodynamics, reducing oxygen demand and/or increasing oxygen supply. For patients remaining symptomatic despite monotherapy, European guidelines recommend a combination of different antianginal agents. The addition of trimetazidine can provide an opportunity to optimize antianginal treatment, as it does not have any hemodynamic effect but acts directly at the myocardial cell level instead. By inhibiting an enzyme involved in fatty acid oxidation, trimetazidine increases creatine phosphate/adenosine triphosphate (ATP) ratio and preserves myocardial high-energy phosphate levels and ion pump function, thereby improving cardiac efficiency.[5] In randomized studies, the addition of trimetazidine to conventional drugs increased antianginal efficacy by about 30% without additional adverse effects.[4]

An important factor contributing to suboptimal angina control is the non-adherence of patients to treatment. Approximately 50% of patients with cardiovascular disease and/or its major risk factors have poor adherence to prescribed medications, and although non-adherence is a well-known phenomenon for asymptomatic conditions such as hypertension, it has also been observed in symptomatic conditions like angina. Non-adherence to medication is a complex phenomenon related to several factors. Among other factors, adherence has been reported to be inversely related to the number of medication doses prescribed per day, suggesting that simplification of treatment regimens could translate into improved adherence and thus to potential clinical benefit.[1]

Trimetazidine 20 mg 3 times a day [('ter die sumendum' (TDS)] or 35 mg 2 times a day, [bis die sumendum (BDS)] are both recommended dosage schedule. However, BD is preferred over TDSs by healthcare practitioners (HCPs). Trimetazidine 35 mg BDS is not a recent formulation; however this was launched last year only.

Trimetazidine dihydrochloride is cytoprotective antianginal drug that displays anti-ischemic activity. It is believed to act via a triple cytoprotective action, namely, restoration of energy production, reduction of energy utilization, and blocking the overproduction of free radicals. Treatment of angina pectoris involves long term therapy. Conventional dosage regimen is 20 mg thrice daily. The twice-daily formulation (35 mg modified-release tablets) is bioequivalent with dosage regimen 20 mg thrice daily with a high minimum plasma concentration (+31% compared with the previous regimen), a longer t75 (4 versus 11 hours), and less plasma level fluctuations, while maintaining steady-state drug blood levels, prolonging therapeutic action, and improving patient compliance.[6,7] The modified release tablet containing 35 mg of trimetazidine maintains sustained 24-hour coverage with only one tablet in the morning and one in evening.[8]

There is lack of real-world evidence on various aspects of CSA management in India. The objective of conducting this questionnaire-based survey was to garner real-world data about the prevalence of CSA among Indian patients; the associated comorbidities among these patients; management practices for CSA in India; and factors affecting compliance in patients with CSA with a special focus on day and night pack for trimetazidine controlled release (CR) 35 mg twice daily (BD) tablets.

METHODS

Survey design

This was a quantitative, cross-sectional, questionnaire-based survey to understand the different patient profiles for trimetazidine in the management of CSA in India and also to determining the compliance with the day and night pack of trimetazidine CR 35 mg BD tablets. The survey was conducted between July 2020 and December 2020 across various regions in India. A total of 100 healthcare practitioners (HCPs) who had each observed 15 patients with CSA in their clinical practices were planned to be enrolled.

Survey participants

Participation in the survey was voluntary. Physicians encountering patients already diagnosed with CSA and who were on medical management were included in the survey. To participate in the survey, e-consent from all HCPs was required following which the link to the survey website was sent to all participants with their log-in username and password details. The survey was conducted in conformance with the principles of the declaration of Helsinki, international conference on harmonization-good clinical practice (GCP) guidelines, Indian Council of Medical Research and Indian GCP guidelines, and the study protocol. In accordance with local legislation and national guidelines, as this survey did not involve any intervention to the patient, ethical approval by an independent ethics review board was not required. Physician confidentiality and anonymity were maintained throughout the survey conduct and data analysis.

Survey questionnaire

The questionnaire consisted of 30 questions grouped into 5 sections as follows: prevalence of CSA and comorbidities in Indian clinical practice; management of CSA in clinical practice; factors taken into consideration while prescribing trimetazidine CR 35 mg BD in the management of CSA; role of trimetazidine CR 35 mg BD

in angina patients with comorbidities; and perspectives on trimetazidine day and night pack (Annexure 1).

Statistical analysis

Formal sample size calculation was not feasible because the current survey was aimed at understanding physician practice and treatment recommendation. However, based on guidance developed by Anthione et al that provides a qualitative description of sample size adequacy with recommended number of respondents, the respondent-to-item ratio method was used.[9] The survey contained 30 questions targeting ~100 HCPs with practice experience of 15 patients each, i.e. a total of 1500 patients ensuring a respondent to item ratio of >3 at the HCP level and 50 at the patient level. Percentage of HCPs responding to any survey question were calculated using Microsoft excel, and data were represented as n (%).

RESULTS

Out of 100 HCPs who provided informed consent, 93 completed the survey.

Prevalence of CSA and comorbidities in Indian clinical practice

In our research survey, 39.8%, 44.1%, and 16.1% of the HCPs reported that in their respective practices, <30%, 31%-50%, and 50%-70% adults had CSA in their clinical practice, respectively (Table 1). Likewise, 72.0% and 52.7% HCPs reported that <30% of angina patients in their clinical practice had associated bradycardia and ischemic cardiomyopathy respectively (Figure 1).

Management of CSA in clinical practice

In our survey, 29.0% HCPs considered "control of angina attacks" as a clinical endpoint while prescribing antianginal agents. Furthermore, 27.5% and 26.0% HCPs considered "improved exercise tolerance" and "improved quality of life" as clinical endpoints for prescribing antianginal agents, respectively. Only 17.5% HCPs considered prescribing antianginal agents to "prevent disease progression" (Table 2).

In all, 52.7% HCPs had observed that <30% of angina patients still manifest anginal symptoms, despite treatment. As per 44.1% of HCPs, 31%-50% of angina patients continued to manifest anginal symptoms after treatment. Only 2.2% and 1.1% HCPs had observed that 51%-70% and >70% angina patients continued to manifest anginal symptoms, respectively (Figure 2).

Table 1: Percentage of angina patients in overall practice.

Percentage of patients with CSA (%)	Percentage of HCPs (%)
<30	39.8
31–50	44.1
50–70	16.1
>70	0.0

CSA: chronic stable angina; HCP: healthcare practitioner

Table 2: Endpoints that physicians look out for while prescribing antianginal agents.

Clinical end point	Percentage of HCPs (%)
Control of angina attacks	29.0
Improved exercise tolerance	27.5
Improved quality of life	26.0
Prevent disease progression	17.5

HCP: healthcare practitioner

Results from the survey indicated that as per 80.6% HCPs, metoprolol was considered as the preferred drug for the management of CSA among β-blockers, whereas 11.8%, 5.4%, and 2.2% HCPs recommended bisoprolol, carvedilol, and other β-blockers as the preferred drug for the management of CSA, respectively.

Similarly, among non-dihydropyridine (non-DHP) CCBs, 71% HCPs preferred diltiazem in the management of CSA and among dihydropyridine CCBs, 73% HCPs preferred amlodipine in the management of CSA (Table 3).

The questionnaire survey found that 77.4% of HCPs preferred trimetazidine as a second-line agent when angina patients were not responding to β-blockers, CCBs, and nitrates. About 15.1% HCPs preferred nicorandil as a second-line agent when angina patients were not responding to β-blockers, CCBs, and nitrates. Only 7.5% of HCPs recommended ranolazine when angina patients were not responding to other drugs (Figure 3).

Table 3: Preferred drug for the management of CSA.

β-blockers	Percentage of HCPs (%)	Non-DHP calcium channel blocker	Percentage of HCPs (%)	Dihydropyridine calcium channel blocker	Percentage of HCPs (%)
Bisoprolol	11.8	Diltiazem	71.0	Amlodipine	73.1
Carvedilol	5.4	None of the non-DHP CCBs	20.4	Felodipine	2.2
Metoprolol	80.6	Verapamil	8.6	Nifedipine	4.3
Other β blockers	2.2	Other CCBs	20.4	Other CCBs	20.4

CCB: calcium channel blocker; CSA: chronic stable angina; DHP: dihydropyridine; HCP: healthcare practitioner

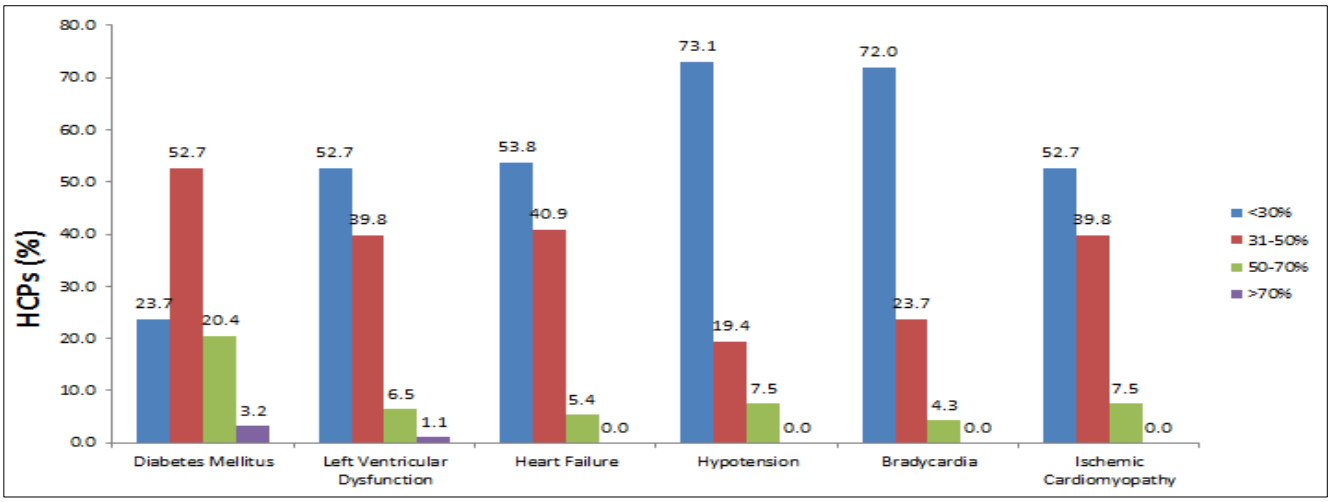

Figure 1: Angina patients in clinical practice having associated comorbidities.

HCP: healthcare practitioner

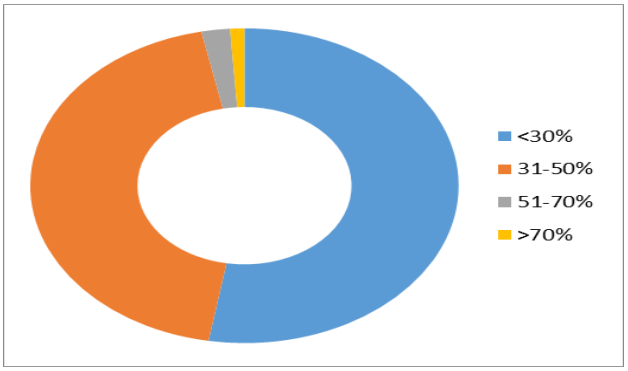

Figure 2: Percentage of patients continuing to manifest anginal symptoms after treatment.

HCP: healthcare practitioner

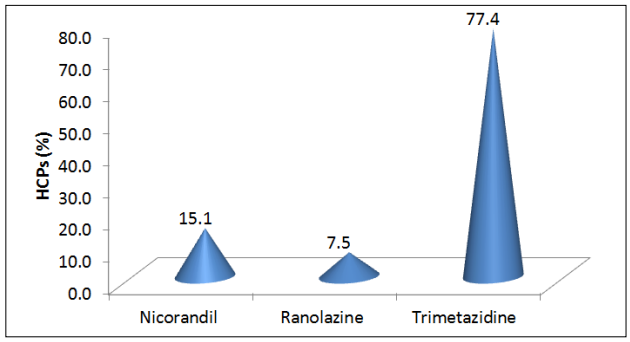

Figure 3: Preferred second-line agent for angina patients not responding to β-blockers, CCBs, and nitrates.

CCB: calcium channel blocker; HCP: healthcare practitioner

Factors taken into consideration while prescribing trimetazidine CR 35 mg BD in the management of CSA

As per the survey, 35.2% of HCPs prescribed trimetazidine CR 35 mg BD as an anti-anginal agent when angina patients were not responding to nitrates, β-blockers, or CCBs. Furthermore, 24.1% HCPs prescribed trimetazidine CR 35 mg BD in newly diagnosed angina patients as initial therapy along with other antianginal drugs, whereas 19.4% and 21.3% HCPs prescribed trimetazidine CR 35 mg BD in angina patients with low blood pressure and low heart rate, respectively.

In this survey, 30.1%, 30.2%, 29.0%, and 9.7% of respondents stated improved exercise tolerance, improved quality of life, no effect on BP and heart rate, and prevention of disease progression as the main reason for prescribing trimetazidine CR 35 mg BD as an antianginal agent.

Results from the survey showed that 59.1% HCPs "strongly agreed" and 40.9% "agreed" with the statement that "trimetazidine CR 35 mg BD can be easily combined with any conventional antianginal drug".

In this survey, 60.2% of HCPs "agreed" and 36.6% "strongly agreed" and preferred trimetazidine CR 35 mg BD over ranolazine while choosing a second-line agent for the management of CSA.

Trimetazidine was preferred over ranolazine by 27.8% of HCPs due to its better efficacy in controlling anginal symptoms. About 29.3% of HCPs preferred to choose trimetazidine over ranolazine because of improvement in exercise tolerance with trimetazidine. Due to its better safety and tolerability, 26.3% of HCPs preferred it over ranolazine. Around 16.6% of HCPs preferred to choose trimetazidine over ranolazine as QT prolongation was observed with ranolazine.

In this survey, 59.1% of HCPs "agreed" to the statement that trimetazidine CR 35 mg BD can be combined with Ranolazine for better clinical benefits, in the management of angina, whereas 29% of HCPs "strongly agreed" on the same. However, 10.8% HCPs disagreed and 1.1% HCPs strongly disagreed with this statement.

Role of trimetazidine CR 35 mg BD in angina patients with comorbidities

It was observed that 57.0% of HCPs agreed that trimetazidine CR 35 mg BD is commonly preferred in angina patients with diabetes mellitus; 58.1 % of HCPs agreed that trimetazidine CR 35 mg BD improves clinical outcome in anginal patients with left ventricular dysfunction. Moreover, 59.1% of HCPs agreed that trimetazidine CR 35 mg BD is also beneficial in improving clinical outcome in angina patients with heart failure; 60.2%, 58.1%, and 59.1% of HCPs agreed that trimetazidine CR 35 mg BD is beneficial in angina patients with hypotension, bradycardia, and ischemic cardiomyopathy, respectively (Figure 4).

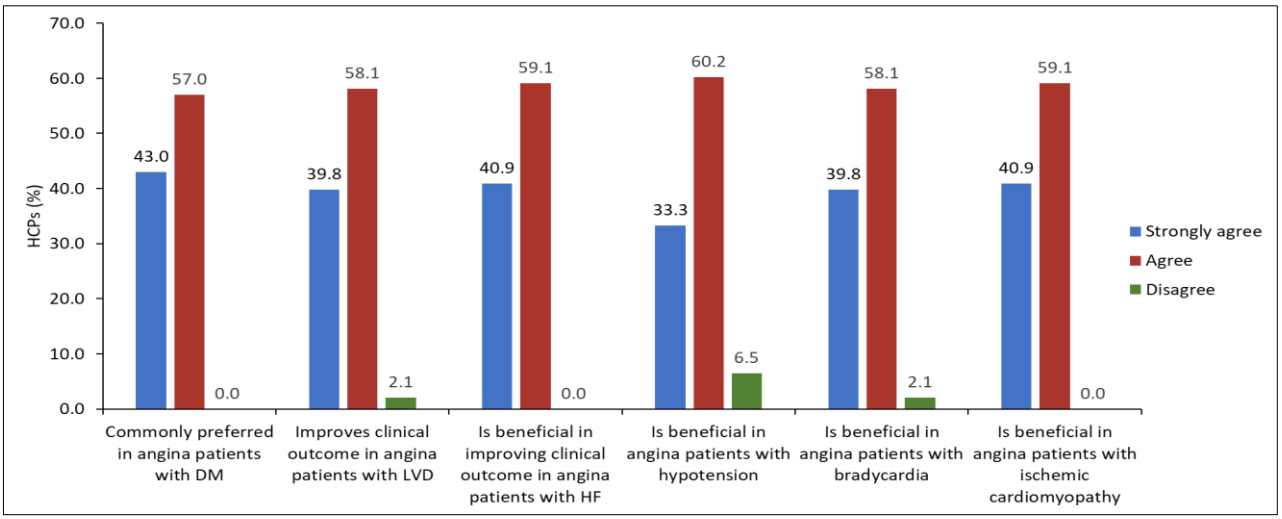

Figure 4: Role of trimetazidine CR 35 mg BD in angina patients with comorbidities.

BD: twice daily; DM: diabetes mellitus; HCP: healthcare practitioner; HF: heart failure; LVD: left ventricular dysfunction

Perspective on trimetazidine day and night pack

The rates of nonadherence observed in this survey are shown in Table 4.

Table 4: Percentage of angina patients' non-adherent to antianginal therapy.

Total percent of patients	HCP response (%)
<10	29.0
>30	11.8
10–20	35.5
21–30	23.7

HCP: healthcare practitioner

Related to the reasons for non-adherence to anti-anginal therapy, 30.7% of HCPs believed that patients stop taking medications once they feel better, whereas 28.3% believed pill burden to a cause of patient noncompliance. About 25.0% of HCPs gave patients forgetting to take medications and 10.8% of HCPs considered side effects of medications as the main reason for non-adherence. Only 5.2% of HCPs considered that non-adherence might be due to trouble swallowing tablets.

Among all the HCPs, 34.4% HCPs "strongly agreed" and 63.4% of HCPs "agreed" on the statement that patients have a clear preference for trimetazidine day and night pack, whereas 2.2% of HCPs disagreed with this statement.

Results from the survey reported that 65.6% of HCPs agreed that day and night packs of trimetazidine tablets help in improving patient compliance and adherence to therapy, while 33.3% HCPs strongly agreed with the same, and only 1.1% of HCPs disagreed.

DISCUSSION

The present survey shows that preferred choice of antianginal drugs should also take into consideration common comorbidities of angina patients. While prescribing antianginal agents, control of angina attacks, improved exercise tolerance, and improved quality of life should be considered as clinical endpoints. Trimetazidine CR 35 mg BD appears to have a safety profile suitable for various conditions and for patients with multiple comorbidities given its lack of hemodynamic effects and very few drug-to-drug interactions. Trimetazidine day and night packs of tablets help in improving patient compliance and adherence to therapy.

Diabetes mellitus is an important risk for future cardiovascular events in patients with and without ischemic heart disease. Trimetazidine improves left ventricular function in diabetic patients with coronary artery disease, a double-blind placebo-controlled study conducted by Rosano et al included a total of 32 patients with type 2 diabetes and ischemic cardiomyopathy. Subjects were randomized to receive either trimetazidine (20 mg, t.d.s.) or placebo (t.d.s.) for six months. In diabetic patients with ischemic heart disease, trimetazidine added

to standard medical therapy has beneficial effect on left ventricular volumes and on left ventricular ejection fraction compared to placebo.[10]

Consistent with previous studies, present survey results confirmed a high prevalence of angina patients in Indian practice with diabetes as one of the most common comorbidities. Survey results showed that trimetazidine is commonly preferred in angina patients with diabetes mellitus and also improves clinical outcomes in anginal patients with left ventricular dysfunction.

In patients with chronic heart failure, trimetazidine has been shown in two meta-analyses to result in significant improvements in left ventricular dimensions, ejection fraction, and New York Heart Association functional capacity, as well as reducing the frequency of hospital admissions. While several studies have also shown an association with mortality reduction in patients with heart failure treated with trimetazidine in addition to usual care.[11] Some studies have also shown a higher ejection fraction (measured by radionuclide angiography) in patients treated with trimetazidine compared with placebo-receiving patients after 6 months of therapy ($p<0.018$).[12]

Consistent with previous studies, present survey results confirmed that trimetazidine CR 35 mg BD is beneficial in improving clinical outcome in angina patients with heart failure and ischemic cardiomyopathy.

Management of chronic angina is often challenging for clinicians. Despite the introduction of several pharmacological agents in the last few decades, a significant proportion of patients continue to experience symptoms (i.e. refractory angina) with subsequent disability.[13] In patients with stable CAD, anti-ischemic therapy should fulfill 2 major goals: safely alleviate symptoms, extend exercise duration, improve quality of life, and improve prognosis, prevent cardiovascular events (mainly myocardial infarction and cardiovascular death) by reducing the incidence of acute coronary thrombosis and slowing the progression of coronary atherosclerosis, and delay the development of ventricular dysfunction.[14]

Majority of HCPs in our survey still preferred trimetazidine CR 35 mg BD for their angina patients because apart from control of angina attacks, it improves exercise tolerance, quality of life and prevent disease progression.

The majority of guidelines and those of the European Society of Cardiology (ESC), consider sublingual or short-acting nitroglycerine, β-blockers, and CCBs as first-choice therapy, whilst the other more recent drugs (ivabradine, nicorandil, ranolazine, and trimetazidine) are restricted for patients who have contraindications to the first-choice drugs, patients who fail to tolerate them, or patients who remain asymptomatic.[14-17] For patients with stable angina whose condition is not controlled by monotherapy with nitrates, β-blockers, or CCBs are often used in combination with other drugs. There may be adverse effects from or contraindications to the use of combinations. Trimetazidine has been reported, in some studies, to be better tolerated than combined antianginal therapy.[6]

In the context of above guidelines recommendations, findings of this survey showed that majority of HCPs preferred β-blockers and nitrates as the first-line therapy followed by trimetazidine and indicated that majority of HCPs preferred trimetazidine CR 35 mg BD for their angina patients.

Trimetazidine has been shown to reduce angina symptoms and to increase exercise capacity in randomized clinical trials, but more extensive data would be useful to assess its effects in real-world clinical practice and in patients with different durations of disease. CHOICE-2 was a Russian, multicenter, 6-month, open-label, prospective observational study that assessed the effect of adding trimetazidine modified release 35 mg bid to antianginal treatment in a real-world setting. The present analysis of CHOICE-2 results explored the effects of adding trimetazidine to background antianginal therapies with regard to the duration of stable angina. Add-on trimetazidine is a safe and rapidly effective treatment for reducing angina attacks and nitrate use in the real-world clinical setting. It also increases exercise capacity and well-being. This provides an opportunity for intensification of treatment early on in the disease process, with the aim of decreasing angina burden and improving patient quality of life.[15,16]

Unlike conventional drugs, trimetazidine exerts no effect on coronary flow, contractility, blood pressure, or heart rate. It has no significant negative inotropic or vasodilatory properties at rest or during exercise; therefore, it can be combined with conventional pharmacotherapy of CAD, as add-on therapy, as well as, substitution therapy when conventional drugs are not tolerated. The combination of trimetazidine with β-blockers or long-acting nitrates significantly improves exercise stress test parameters and angina symptoms. [17]

Consistent with previous studies, present survey results confirmed that trimetazidine CR 35 mg BD can be easily combined with any conventional antianginal drug or it can be prescribed when angina patients do not respond to nitrates, β-blockers, or CCBs.

Ranolazine, a selective inhibitor of late sodium channels (I_{Na}) in the myocardium is an antianginal drug effective as both combination therapy and monotherapy among patients not responding to conventional antianginal therapy.[18] In this survey, 60.2% HCPs agreed and preferred trimetazidine CR 35 mg BD over ranolazine while choosing a second-line agent for the management of CSA due to its better efficacy in controlling anginal symptoms. Also, survey results indicated that trimetazidine CR 35 mg BD can be combined with

ranolazine for better clinical benefits, in the management of angina.

In addition to treatment choice and dose, non-adherence of patients to treatment can explain suboptimal angina control. A study based on patient self-reports found that as many as 54% of CAD patients were non-adherent to treatment with β-blockers. Non-adherence to medication is a complex phenomenon affected by several factors.[19] Non-adherence reduces the effectiveness of drug treatment and contributes to morbidity, mortality, and hospital admissions, as well as increased healthcare costs. A cross-sectional study was conducted by van der Laan et al to identify which factors are associated with nonadherence to cardiovascular medications in a sample of patients from Dutch community pharmacies. In total, 255 patients participated (53.3% men, 71.6±10.9 years). Factors associated with cardiovascular medication nonadherence in multivariate analyses included experiencing difficulties with medication use due to forgetting, having insufficient knowledge on what to do when a dose is forgotten, and having an ambivalent attitude toward medicines (beliefs of high necessity and high concerns).[20]

Consistent with previous study, present survey results confirmed that patients were non-adherent to anti-anginal therapy due to the various reasons for non-adherence such as forget to take medications, stop taking medications once they feel better, trouble in swallowing tablets, side effects of medications and due to pill burden. Majority of the HCPs agreed that patients have a clear preference for trimetazidine day and night pack. As per survey, trimetazidine day and night pack help in improving patient compliance and the majority of HCPs had a clear preference for trimetazidine day and night pack as it helps in improving patient compliance and adherence to therapy.

Some of the limitations of the survey include lack of questions on occupational exposure history, socioeconomic status, or previous hospitalization that may have impacted treatment patterns and the relatively short follow-up duration. Because of the chronic and dynamic nature of angina, an observational period of at least a year would have yielded more robust results. Multicenter studies with larger sample sizes and longer follow-up duration are therefore needed to validate the current findings.

CONCLUSION

Taken together, the results suggest that trimetazidine helps improve compliance and adherence to therapy in Indian patients with CSA. However, large-scale, prospectively designed, randomized controlled trials with long-term clinical endpoints are warranted.

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ANNEXURE

Questionnaire

S. no.	Questions
1	Chronic stable angina in Indian clinical practice
	What percent of adults in your clinical practice have chronic stable angina?
	What percent of angina patients in your clinical practice have associated diabetes mellitus?
	What percent of angina patients in your clinical practice also manifest left ventricular dysfunction?
	What percent of angina patients in your clinical practice have associated heart failure?
	What percent of angina patients in your clinical practice present with associated hypotension?
	What percent of angina patients in your clinical practice present with associated bradycardia?
	What percent of angina patients in your clinical practice have associated ischemic cardiomyopathy?
2	Management of chronic stable angina in clinical practice
	What are the clinical end points that you are looking out for while prescribing anti-anginal agents?
	What is your initial choice of pharmacotherapy for chronic stable angina?
	What percentage of chronic stable angina patients, despite treatment, still manifest anginal symptoms?
	Which β- blocker you usually prefer for the management of chronic stable angina?
	When required, which non-dihydropyridine (Non-DHP) calcium channel blocker you usually prefer in the management of chronic stable angina?
	When required, which dihydropyridine calcium channel blocker you usually prefer in the management of chronic stable angina?
	Which second line agent you prefer when an angina patient is not responding to β- blockers, CCBs and nitrates?
3	Trimetazidine controlled release (CR) 35 mg BD in the management of chronic stable angina - patient profiling
	When do you prescribe trimetazidine CR 35mg BD as an anti-anginal agent?
	Apart from control of angina attacks, what is the 'most' important benefit because of which you prefer Trimetazidine CR 35 mg BD for your angina patients?
	Do you consider that the trimetazidine CR 35 mg BD can be easily combined with any conventional antianginal drug?
	Do you prefer trimetazidine CR 35 mg BD over ranolazine while choosing second line agent for the management of chronic stable angina
	What are the factors that make you prefer to choose trimetazidine over ranolazine?
	Do you consider that trimetazidine CR 35 mg BD can be combined with ranolazine for better clinical benefits, in the management of angina?
	Role of trimetazidine controlled release (CR) 35 mg BD in angina patients with comorbidities
4	Trimetazidine CR 35 mg BD is commonly preferred in angina patients with diabetes mellitus
	Strongly agree
	Agree
	Disagree
	Strongly disagree
	Trimetazidine CR 35 mg BD is improves clinical outcome in anginal patients with left ventricular dysfunction.
	a. Strongly agree
	b. Agree
	c. Disagree
	d. Strongly disagree
	Trimetazidine CR 35 mg BD is also beneficial in improving clinical outcome in angina patients with heart failure
	a. Strongly agree
	b. Agree
	c. Disagree
	d. Strongly disagree
	Trimetazidine CR 35 mg BD is beneficial in angina patients with hypotension
	Strongly agree
	Agree
	Disagree
	Strongly disagree

Continued.

S. no.	Questions
	Trimetazidine CR 35 mg BD is beneficial in angina patients with bradycardia
	Strongly agree
	Agree
	Disagree
	Strongly disagree
	Trimetazidine CR 35 mg BD is beneficial in anginal patients with ischemic cardiomyopathy
	Strongly agree
	Agree
	Disagree
	Strongly disagree
5	Perspectives on trimetazidine day and night pack
	What percentage of your angina patients are non-adherent to anti-anginal therapy?
	What are the reasons for non-adherence to anti-anginal therapy?
	Patients have clear preference for trimetazidine day and night pack
	a. Strongly agree
	b. Agree
	c. Disagree
	d. Strongly disagree
	Do you consider that day and night pack of trimetazidine tablets help in improving patient compliance and adherence to therapy?
	a. Strongly agree
	b. Agree
	c. Disagree
	d. Strongly disagree